THE EFFECTS OF DEMOGRAPHIC STRUCTURE ON EXPENDITURE PATTERNS IN CANADA

by

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Summary

Immigration to Canada, the age structure, and changes in family structure of the Canadian population, are all changing the fabric of Canadian society. These changes have a potential impact on the Canadian economy since differences exist in sources of incomes, expenditure patterns, and savings patterns depending on individual demographic characteristics. These differences can be investigated for their impact in micro terms.

In a comparison of micro (uncontrolled) expenditures, there are sizeable differences between recreation expenditures and expenditures on tobacco and alcohol by the Canadian-born and those immigrating from non-European countries. An opposite significant difference exists in education expenditures. Those from the south and east European countries spend the largest portion on food. These differences tend to remain when age is held constant.

No matter where the head of the household was born, expenditures on food, and tobacco and alcohol as a proportion of total spending decline as education increases. Expenditures on household operation, clothing, reading materials and education increase as a percentage of total spending as education rises. The foreign-born from non-European countries spend less than other birthplace groups on tobacco and alcohol even with education held constant.

When birthplace is compared across Canada's five regions, there is a marked consistency. For example, no matter where the head of household was born, expenditures on shelter as a proportion of total spending are highest in British Columbia and lowest in the Atlantic Provinces.

Immigrants who have lived longest in Canada spend a significantly larger portion of each dollar earned on shelter, health care, and food and considerably less on transportation, education, and recreation. Most recent immigrants spend a considerably larger portion on household furnishings, transportation, and education. The comparison group is the Canadian-born.

When time of arrival is broken down by age, education, and region of Canada, there is less consistency, but some patterns emerge. Those over 65 spend more on food and shelter as a percentage of total spending than do other age groups reported. University graduates spend a larger portion of total spending on reading materials and education and a smaller portion of total spending on food, personal care, and tobacco and alcohol.

Recreation, transportation, clothing, education, tobacco and alcohol expenditures are lower as a percentage of each dollar spent for households where the head is over 65 years of age in the uncontrolled microdata. Where the head is less than 24 years of age, expenditures in recreation, education, and tobacco and alcohol are highest per dollar of expenditure. Clothing and transportation expenditures are highest for those in the mid-ages.

For those households with no spouse present, male households spend a greater portion of their expenditure dollar on transportation, recreation, and tobacco and alcohol and a considerably lower proportion than female head of households on shelter, household operations, furnishings, clothing and personal care.

In those households where the spouse is present, the comparison is whether the spouse does or does not earn income. Where the spouse has no income, a larger portion of the expenditure dollar is allocated to food and shelter as compared to households with spousal incomes. Households with spousal income allocate more to household operations, furnishings, clothing, transportation, recreation, and education than do no spousal income families.

Unattached individuals allocate proportionately less to expenditures on food, household operation, furnishings, and personal care and proportionately more to expenditures on recreation, reading materials, education, and tobacco and alcohol when compared to married couples with no children. The latter group spend proportionately more on transportation and health care.

Households with children under the age of five have the highest proportion of income going to household furnishings among the family composition groups while those whose youngest child is between five and fifteen pay a higher proportion of income for clothing, recreation and education.

Single-parent families spend a larger proportion of total dollars on food, shelter, household operations, and personal care among the family composition groups.

By family type, those with one adult and three or more children spend a greater portion of the expenditure dollar on food and shelter than do other family types. Families with three or four people over the age of 16 spend proportionately more on recreation and education.

Tobacco and alcohol spending and transportation spending are a higher proportion of expenditure in families without children (singles, couples, and where there are three or four adults) than in households where children are present.

Comparison across age groups holding the level of total expenditure constant shows a larger portion of spending for those over age 55, a smaller portion of spending at any age, the larger total spending. Shelter also constitutes a smaller portion of total spending, the larger total spending. As a portion, transportation expenditures tend to grow as total spending rises as do recreation and clothing expenditures.

Ordinary least squares are used to estimate the equations for the proportion allocated to each commodity group. In this way, and by using dummy variables, the importance of a demographic variable can be assessed while controlling for other factors, including demography, which might account for differences in spending as outlined above in points 3 to 9.

Proportion of total consumption allocated to food, shelter, household operation, health care, personal care, reading materials, education, and tobacco and alcohol decline as total expenditure (proxy for permanent income) increases. The proportion spent on household furnishings, clothing, transportation, and recreation increases as total expenditure increases.

With age as a continuous variable, the proportion of total expenditure allocated to food, shelter, household operation, transportation, health care, and reading materials increases with the age of the head of the household and decreases for proportions spent on clothing, recreation, education, and tobacco and alcohol.

The substitution of the binary variable for different age groups causes the relationship between age and the proportion of total expenditure allocated to shelter to appear as a backward "S" placed on its side where those under 24 years allocate significantly less to shelter as do those between 45 and 64 while those over 65 allocate more.

Allocation to transportation as a proportion of total expenditure is "U" shaped as age groups above and below the 35 to 54 age group allocate more of their total expenditure to transportation.

The foreign-born from the United States, Northern and Western Europe, including the United Kingdom, allocate a higher proportion of total expenditure to recreation and reading materials and significantly less to food, furnishings, and clothing when the other independent variables are held constant.

Those born in the south and east of Europe allocate a lower proportion of total expenditure to reading materials; there are no other significant differences when other variables are held constant.

Those born in non-European, non-American locations allocate a higher portion of their expenditure dollar to transportation and a lower portion to household furnishings and tobacco and alcohol when other independent variables are held constant.

In sum, birthplace has a relatively small and insignificant influence on consumers' allocation among spending categories when age, total expenditures, education, location, and family size and type are controlled.

The findings with respect to arrival year also indicate that where differences in allocation among expenditure categories exist, these differences are due more to influences such as age, education, and income and less to birthplace or time spent in Canada *per se*.

As the size of the household increases, the proportion of total expenditure allocated to food and education rises, and the proportion allocated to household furnishings, transportation, reading materials, and tobacco and alcohol falls.

Household size is the second most important determinant of the proportion of total expenditure allocated to food and household furnishings after total expenditure.

Households headed by females allocate a higher proportion of total expenditure to shelter, household operations, household furnishings, clothing, health care, personal care and education than male-headed households when the other independent variables are controlled. Female-headed households allocate lower portions of every dollar of expenditure to food, transportation, recreation, and tobacco and alcohol. Female-headed households are the most important determinant for personal care, and sex of the head is the second most important factor in spending on clothing and tobacco and alcohol.

For adult-only households, the proportion of total expenditure allocated to food rises with the number of adults. The opposite is true for shelter.

One-adult households when compared to two-adult households with the same number of children allocate proportionately less of total expenditure to food, clothing, health care, and personal care and more to shelter and household operation when other determinants are held constant.

In two-adult households with children compared to two-adult households without children, a higher proportion of expenditures is allocated to shelter and household operation and a lower proportion to clothing, transportation, education, and tobacco and alcohol.

The presence of a working spouse increases the proportion of total expenditure allocated to shelter, household operations, household furnishings, clothing, and personal care and lowered the proportion allocated to transportation and tobacco and alcohol.

It appears that the size of the household and its family composition (children versus adults) are the two most important demographic influences. This is followed by the sex of the head of the household and then by the age of the head. The head's marital status, birthplace, and the spouse's employment status are not so important. However, the relative influence among the demographic variables differs widely among the disaggregated consumption groups.

The combined analyses of chapters 3 and 4 suggest that immigrants at time of arrival spend a larger proportion of their consumption dollar on household furnishings, transportation, recreation, and education, but this is due more to differences in age and family makeup than to immigration. Demographic predictions of a small cohort of 15 to 34 year olds between 1985 and 2005 suggest that the relative strength of industries which supply the goods listed above may weaken, or that the numbers in that crucial age group could be enhanced by increasing immigration.

Our data indicates a sharp fall in consumer spending on all items for the over age 65 cohort along with an increase in savings. That this group saves out of their lower incomes suggests a frugality borne out of a drop in "needs". If the elderly actually do have fewer "needs", one would question some Canadian social programs, but much more study is indicated.

The purpose underlying the basic personal, spousal, and dependent tax credits might be re-examined in light of consumption patterns, particularly those disaggregated for necessities noted in this study.

There is some evidence that as the population ages, more spouses work, more families break up, and immigration increases, the declining industries are more labour-intensive relative to capital.

Longitudinal data bases would assist greatly in developing policy statements.

Chapter 1: Income, Consumption and Savings Patterns: The Relation to Demographics

Aging, immigration to Canada, and variations in the family structure of Canada's population are changing the fabric of Canadian society. Changes in demographic characteristics have a potential impact on the Canadian economy producing differences in income sources and consumption patterns. The economic impact of demographic differences can be investigated in both micro and macro terms although only the former are investigated here.

1.1 Age and Consumer Demand

The age structure of the population changes slowly over time; however, a very significant proportional increase in the number of senior citizens and a proportional decline in the number of people under age 16 has occurred over the last 20 years. All projections carried out by Statistics Canada (Population Projections 1985) and other demographers (Foot 1982; Dumas 1987; Denton and Spencer 1987; Romaniuc 1984) indicate that those changes will continue if mortality and fertility rates continue to move in current directions or remain at current levels.

This research will focus on consumption habits broken down by age rather than on life cycles or permanent income. We analyze income, income sources and consumption only incidentally and on a cross-sectional not temporal basis. Thus, there are limitations to interpretations of the income data.

By looking at Canadian consumer expenditure, we can determine the impact of age on consumer spending in aggregate and also disaggregated into expenditures on broad consumption categories such as food, shelter, transportation, clothing and others. Several important factors affecting the relationship between age and consumer demand have been recognized over time. In traditional one-earner families, dissaving has typically occurred in younger years (twenties and thirties) and after age 65. Hamermesh (1984) has recently found a lesser amount of dissaving in the over 65 age group than was previously thought. He suggests that wealth changes very little in this group. The number of children produces the greatest effect on dissaving in younger years and also affects the number of years of dissaving (Hamermesh).

As a population ages, one would expect less saving, counterbalanced by more saving in the immediate pre-retirement years, and a consequent impact on real gross domestic product since the consumer portion of aggregate demand would be decreased. As well, some senior citizens' dollars leave the country due to travel in early retirement years or wintering outside Canada.

Relating the impact of age to aggregate demand in the economy will also produce some impact on aggregate supply since most changes in the latter result from changes in the proportion of the 15 to 65 age group which forms the labour force.

1.2 Immigration and Consumer Demand

Canada has experienced substantial immigration since the end of World War II, but economists remain uncertain about the overall effects of these flows on the Canadian economy. Most research on the subject has studied labour market effects while most public discussion has focused on the effect on labour supply either in total or for specific labour markets. The effects of immigration and changes in the foreign-born proportion of the population, both on the level of aggregate demand and on the demand for labour, as well as the resulting effects on the economy, are also of interest but have received less attention.

Increasing the labour force via immigration was questioned in the early 1980s when the unemployment rate was relatively high. The restrictions placed on independent immigrants and assisted relatives in 1982 carried the implicit assumption that immigrant families take up more jobs than are created both by their expenditure and by the many expenditures made on their behalf by others such as governments. Therefore, the relative importance of demand and supply side effects of immigration and the foreign-born is an important issue. In this debate, it is useful to know more about the total expenditure and saving patterns of the foreign-born as well as their allocation of total expenditure to various consumption items.

Assume for the moment that total or aggregate spending habits of the foreign-born differ from the Canadian-born. How are standard theoretical and empirical models of the Canadian economy altered if this difference is not taken into account? In simple terms, the level of consumption will either be too low or too high at each level of real gross domestic product. Alternatively, if the difference is included, real consumption will be higher (lower) at each level of real disposable income, real aggregate demand will be greater (smaller) and, all else remaining equal, real gross domestic product and the stimulative effect (the multiplier) will be higher (lower). In the simplest case, if everything remains constant except for a higher proportion of foreign-born in the population and if the foreign-born consume more real disposable income than the Canadian-born, we can expect the aggregate demand to increase, real gross domestic product to rise, the unemployment rate to fall, and interest rates and prices to increase. Since the total population has been held constant, real gross domestic product per capita will also rise. The opposite effects follow if the foreign-born allocate less to consumption at each level of real disposable income. Thus, it is important to learn the behaviourial pattern of the foreign-born and to incorporate this in macroeconomic models of the economy.

The above results are slightly different if we postulate that the population and labour force rise because of immigration and because of an increase in the proportion of the foreign-born population. Here, different spending habits will raise real aggregate demand and real gross domestic product, but the effects on prices, interest rates, the unemployment rate and real gross domestic product per capita are indeterminant. Since both the labour supply and labour demand (through aggregate demand) increase, unemployment may rise or fall. Since both population and real gross domestic product increase, real gross domestic product per capita can rise or fall. These effects are empirical issues and cannot be settled by theory alone.

In any case, the average propensity of the foreign-born to consume is important to resident or Canadian job creation because the greater the proportion of current income spent, the greater the job creation potential of any given income. Therefore, if the average propensity of the foreign-born to consume exceeds that of the Canadian-born, jobs may be created even if some immigrants initially take jobs from the Canadian-born.

The comments so far relate to total consumption or expenditure. It is equally important to know the allocation of this total among various consumer expenditure categories. Which sectors will be relatively stimulated by greater immigration and a larger foreign-born population? Which employment-generating effects of immigration affect particular unemployed Canadians because of the implied increase in job vacancies in some sectors?

The following illustration does not necessarily resemble the Canadian situation. If the foreign-born spend a relatively high proportion of their income on food, clothing, and housing and spend a relatively low proportion on household equipment, transportation, and education, demand will be stimulated in the former and depressed in the latter. Immigration may create an advantage for unemployed Canadians looking for employment in the former sector and a disadvantage to those seeking employment in the latter. Thus, it may be that the relatively unskilled labour generally employed in the food, clothing, and housing sectors may enjoy an advantage from immigration, while all else remaining equal, fewer additional jobs may be created for those with other skills.

In terms of this study, two other less important factors affect the Canadian economy. Savings behaviour, in aggregate and in terms of the type of assets held as savings, can have an impact on the growth of the Canadian economy, interest rates, and the degree of risk. Further, the rate of increase of the real gross domestic product may change since an increase in savings reduces the level of consumption.

Finally, the foreign-born and Canadian-born may differ considerably in source of income. It may be hypothesized that one group receives a larger share of income from labour while the other receives more from a return to land and capital. Such a difference could have an impact on the relative benefits of immigration as well as on the relative benefits of different consumption patterns.

If household consumption and saving behaviour are affected by the cultural background of household members as well as by current circumstances relating to age, gender, education, marital status, income, etc., then place of birth and the process of assimilation will be important determinants of behaviour. Thus, it is important to learn if foreign-born households consume differently from Canadian-born households. Failure to distinguish place of birth and period of time in Canada would mean failure to distinguish any difference in behaviour. Thus, it is important to separate instances in which foreign birth is important in itself from those in which foreign birth is correlated with the basic causes of expenditure differences.

J. Nightingale (1978) suggests that the consumption behaviour of the foreign-born differs from the Canadian-born for two reasons, the transition effect and cultural differential. The transition effect refers to modifications in usual consumption or saving behaviour caused directly by immigration. Therefore, immigrants may transfer their assets to Canada as cash, but must acquire household goods such as furniture and appliances. While these goods are purchased, food and other purchases will be a smaller proportion of total expenditure. Cultural differential refers to the influence of cultural background on spending habits in Canada.

1.3 Family Structure and Demand

Since the early 1960s, the number of two-earner families has rapidly increased while the number of siblings has decreased per family. It also appears that couples have been putting off childrearing until a later stage in the life cycle. These factors are likely to affect consumption and saving patterns. Younger two-earner couples may be able to accumulate consumer durables without noticeable dissaving and have incomes high enough to minimize dissaving when childrearing begins.

The increase in the number of one-parent families also affects consumption since these families tend to have smaller incomes which are quickly exhausted by basic necessities.

Consequently, it is important to know which sectors will be relatively stimulated by changes in family structure and which will contract. We will also be able to examine whether the employment-generating effects of spending by two-income households will be sufficiently large to provide jobs for those second earners.

1.4 Relative Changes

What relative differences result from adding a second wage earner to the total number of consumers in an immigrant family? One hypothesis suggests that aggregate demand would be stimulated more by the primary wage earner and that different expenditure categories would be affected. It is likely that food and shelter would be stimulated more by a primary wage earner, whereas tourism, automobile purchases, and luxury items would be stimulated more by a second wage earner.

The increase in the number of senior citizens will likely cause greater expenditures from income on categories such as food, shelter, and health care. These larger portions come from smaller incomes but will still affect the relative growth of specific sectors in the economy.

The Canadian population is now made up of a constellation of family structures and family sizes. Variables such as the growth of second earners can be inserted into economic models in order to determine their impact.

1.5 Literature

This section will discuss some of the relevant literature concerned with consumption patterns and demographic variables such as age, birthplace and family structure. We will not discuss the relation of family size to income or the income of the elderly as those do not form part of our study. Little literature exists on the differences in consumption habits by age, family structure, and birthplace *per se*, which makes the present study unique. The relatively large amount of attention accorded consumption and birthplace reflects only the greater amount of research on those topics.

1.6 Some Literature: Income Sources, Consumption and Saving Patterns by Age Group

A significant body of research and theoretical work on the life cycle hypothesis of consumption began in the 1950s. Most empirical work (mainly American) has been cross-sectional in nature. Researchers have recognized that a proper analysis of the life cycle hypothesis requires a combined longitudinal, cross-section analysis. Since the present study has only cross-sectional data

for three time periods, it is limited in its ability to test the life cycle hypothesis. However, by controlling for family type (single-parent, two-earner household, female head of household), it should be possible to detect a pattern between age and income sources on the one hand and consumption and saving patterns on the other.

Little or no literature was found on Canadian consumption patterns by age. Furthermore, no literature exists on changes in the consumption function to account for the average age of the population. However, a great deal of literature exists on population aging (Myles and Boyd 1982) and its impact on health care usage (Stone and Marceau 1977).

1.7 Some Literature: Income Sources, Consumption and Saving Patterns by Birthplace

Few analytical studies exist on the consumption and saving patterns of the foreign-born by themselves or in comparison to the Canadian-born. Marr (1973, 1976), following the lead of Kmenta (1966) and Duloy (1967), assumed that the consumption patterns of the foreign-born in Canada would differ from the Canadian-born. If immigrants do differ from the Canadian-born in important characteristics such as asset holdings or age structure, they are also likely to differ in saving and consumption functions for several years after arrival. Marr argues that net immigration influences the time path of indicators of aggregate economic activity because of the increment to population and because of the distinctive features of immigrants.

Marr looks specifically at the average expenditure per capita of several macroeconomic variables and assumes that the additional or marginal expenditure from a change in another variable, such as per capita income, is the same for immigrants, emigrants, and the Canadian-born. Marr anticipates differences in average expenditure per capita between immigrants and the Canadian-born for consumer non-durable goods, consumer durable goods, consumer services, housing, imports of consumer goods and services, gross investment in plant and equipment, and imports of non-consumer goods. These are all demand elements. His examination of supply or labour market behaviourial differences will not be pursued here. Marr's model suggests that the foreign-born may have different average expenditure per capita on the above goods and services upon arrival in Canada and for the next several years, but their expenditure patterns gradually approach those of the Canadian-born. His model attempts to discover how long annual net permanent arrivals affect the above-mentioned behaviourial functions. Marr does find differences in average expenditure between the two birthplace groups and a clear indication of the length of time before behaviour conforms to Canadian norms. For consumption of non-durables, durables, and services, the periods are five, three, and two years respectively. The adjustment period is five years for personal expenditure on imports, while housing expenditure differences persist for six years. The adjustment period for investment in plant and equipment is only one year.

The differences noted by Marr are not strictly between the two birthplace groups but result from the interaction between immigrant flows and the working of the economy. For example, the inflow of immigrants may affect the aggregate behaviour of the Canadian-born population. Instead of an initial higher expenditure per capita on housing by the foreign-born gradually falling to equal the expenditure pattern of other Canadians, the latter's pattern may actually rise to meet the pattern of the foreign-born (Nightingale 1978). Marr's results do show significant behaviourial differences between birthplace groups and a measurable impact on the aggregate Canadian economy which is likely due to the behaviour of immigrants that exists for a number of years. He

incorporates his immigration-augmented behaviourial relations in a small macroeconomic model of the Canadian economy and simulates the influence of various levels of net immigration on key economic variables for the years 1950 to 1967. This may be the only macro model for Canada which explicitly includes differences in consumption or demand of the foreign-born in behaviourial relationships.

The present state of data gathering in Canada restrict a researcher to using cross-sectional data to ascertain whether different birthplaces are associated with different expenditure and saving behaviours. Marr and McCready (1986) find significant expenditure differences by birthplace among the foreign-born, by length of time in Canada and by foreign country of birth, in their examination of the 1982 Survey of Family Expenditure. They find significant differences between the foreign- and Canadian-born in the propensity to consume certain consumer items. In particular, the foreign-born allocate a significantly higher proportion of their income to food and shelter and less to clothing. No difference is found for expenditures on household items and transportation. Other significant differences in expenditure patterns are discovered but make up relatively small proportions of total expenditure.

Marr and McCready divide the foreign-born sample into a number of periods of immigration (before 1946, 1946-1965, 1966-1975 and 1976-1982) and compare each sub-group to the Canadian-born as well as to each other. Some interesting differences are discovered. Generally speaking, in more recent periods of immigration, higher proportions of income are devoted to expenditures on food, shelter, household items, and clothing. The most recent group of immigrants allocate much larger proportions of their total income to each of these major expenditure categories. If this pattern continues in the future, net immigration could easily make up a larger percentage of the change in Canada's population, causing significant structural changes within consumer expenditure categories.

Data distribution on the public-use computer tape permitted Marr and McCready to calculate propensities to consume by country of birth, but they were unable to carry out tests of significance or to explore the reasons for the identified differences. They did find that those born in the United States or North-Western Europe tend to have closer consumption patterns to the Canadian-born than do those born in Southern Europe, Asia, or South-Central America. This implies but does not prove that cultural and background differences translate into different allocations of consumer expenditure.

Immigrants from Asia and South-Central America tend to allocate higher proportions of their total income to food, shelter, household items, clothing, and transportation than those from North-Western Europe. Immigrants from Southern Europe devote a higher percentage of income to food, clothing, and transportation than those from North-Western Europe, but the opposite is true for shelter and household items.

The differences between the Canadian- and foreign-born found by Marr and McCready may be due to two generic causes: (1) since consumption patterns differ by age, income, education, gender, occupation, and other factors, the foreign-born may differ from the Canadian-born on one or more of these characteristics; and (2) cultural, social or assimilation factors impart differences to consumption patterns. Cultural and background characteristics may impart permanent consumption differences to the foreign-born while assimilation factors could be temporary so that consumption differences disappear over time. In conclusion, although some differences between the Canadian- and foreign-born disappear when factors such as age, income, education, gender, family size are held constant, many differences still remain. Some non-differences become significantly different over time. Causal analysis of this kind is still incomplete and suggests other research extensions.

1.8 Some Literature: Income Sources, Consumption and Saving Patterns by Family Structure

Canadian consumption related to family structure has also received little or no attention. Dimensions such as family size, age of children, presence of spouse and presence of working spouse can potentially have an impact on consumption or saving.

Few Canadian or other studies exist on the expenditure patterns of various family structures. The sociology literature tends to deal with the increasing number of wives and mothers who work (Saunders 1982). The economic literature has tended to emphasize earnings as they relate to human capital investments within marriage (Mincer and Polacheck 1974) or the impact of children on time values (Gronau 1974). None of these relate to this study.

1.9 Focus for the Research Reported in this Study

Decisions about how to receive income, how much income to consume and save, and how to allocate total consumption expenditure are made by individual economic agents, usually households, aggregating up to total Canadian consumption. Therefore, information on the demographic structure of Canada is required.

Aggregate consumption for all goods and for specific goods and services are influenced by a complex interaction of variables such as income and demographic effects. If economic growth slows, then demographic effects may become more important than income effects and, thus, greater awareness of the relationship between consumption and demographic change is required.

Research can either use aggregate relationships that add in demographic variables such as net immigration or family size as additional explanatory factors or estimate demand and consumption relationships at the household level and then form an aggregate by using demographic weights. In both cases, the link between the economy and demographic change is recognized explicitly and examined systematically. This is key to any demographic review which hopes to establish the level and structure for Canada's future population.

This study adopts the second approach by studying the consumption and savings patterns of individuals using micro data. The micro or individual analysis addresses the issue of different consumption and savings allocations for different birthplace, age, family size, and family structure groups. These micro data can be aggregated to study the overall total consumption and saving propensities for the same variables.

Research areas discussed here will refer only to differences between income sources, and consumption and saving propensities by birthplace, age, and family groups. Once differences have been established, research should be undertaken on how they influence Canadian society and its economy. The analysis is predicated on the belief that the foreign-born will continue to constitute a larger percentage of the growth in Canada's population and that Canada's population will become relatively more aged. It is also expected that family size will continue to decline, there will be more single-parent families, and more spouses will work.

As the proportion of the foreign-born increases, their consumption and saving differences may impart significant influences on both the demand and the supply sides of Canada's economy. The aging population may also impart consumption and saving effects as well as labour force size effects to the economy. In addition, working spouses are likely to consume and save differently from non-working spouses with a concomitant impact on the labour force.

We do not know yet whether age, birthplace and family groups cause different ratios of total consumption to expenditure or of total saving to disposable income. Consumption and savings patterns are important parameters in most macroeconomic models of the Canadian economy. These parameters may be inappropriate if groups such as the aged, immigrants and two-earner families have significantly different propensities to consume and to save.

The data in Statistics Canada's Survey of Family Expenditures for 1978, 1982, and 1984 will be used to establish the presence of these different average propensities to consume and save. It will be established whether the foreign-born allocate different proportions of their income to quite disaggregate consumer expenditure items. When disaggregated by age, the data can be used to determine the impact of aging of Canada's population. Working spouses will be included in the analysis to determine what proportion of their incomes flows to disaggregated expenditures. If these patterns persist, then an enlargement of the inflow of foreign-born, a change in birth and mortality rates, changes in family size, and the working habits of spouses can be projected onto various consumer goods markets. The data set enables a researcher to sub-divide the foreign-born by period of immigration and by birthplace, to segregate different age groups of immigrants and Canadians, as well as to investigate the causes of differences in consumption and saving in grouping by birthplace, age, family size, and family structure. These data sources also enable consumption and saving functions to be calculated for the foreign-born by time spent in Canada or by period of immigration, and, in some cases, by country of birth.

It must be emphasized that the focus of this study is on expenditure, not savings. The word "expenditure" is more appropriate than "consumption" because of the way in which the data on the Survey of Family Expenditures are included. For example, in the category called transportation, the entire purchase price of a car is included. Thus, consumption will be overstated, and savings will be understated. As well, insurance policies are more appropriately identified as expenditures than as part of consumption.

Once differences have been established among the age, birthplace and family groups, we have asked ourselves if these differences are due to education, gender or other factors or are they a reflection of "true" cultural background, age and family differences. In the case of the birthplace factor, will different saving, income sources and consumption disappear as the foreign-born spend more time in Canada, and as they relate to age? The data by period of immigration will help to answer this question. If cultural factors "explain" the differences, then time in Canada is less likely to reduce these initial differences.

Chapter 2: Population Data and Projections

Age, birthplace, and family structure of the Canadian population are three main demographic variables which affect expenditure patterns in Canada. Consequently, we are interested in the differentials in expenditure between age groups, between foreign-born and Canadian-born groups, and between different family structures. This chapter surveys these three demographic trends to demonstrate past and potential future trends that might affect expenditure. They are separately surveyed at first and then summarized in aggregate.

2.1 Age Structure

Canada's experience with fertility, mortality, immigration and emigration has meant that over time Canada's age structure has changed. Table 2-1, which details the median age of the population by province from 1921-1981 and projections for Canada as a whole to 2051, demonstrates the aging trend of Canada's population.

Median age does not tell the whole story. It is also important to examine the population structure as in Figure 2-1 to determine the dependent versus working-age population. The construct also shows the larger numbers of younger males and females.

Most of Canada's provinces have age-sex compositions similar to the one depicted for Canada in Figure 2-1. In provinces such as Ontario, the "baby-boom" bulge is smaller because immigration and other factors added population in other age groups. Saskatchewan, Manitoba, Prince Edward Island and British Columbia have proportionately more population in the over 65 age group. Special considerations exist for the non-working population under 15 years of age and over 65 years. Education and health expenditures increase on a per capita basis as the proportion of individuals in these age groups increases. Canada's "dependent" population in 1971, 1981 and 1986 was 37.7, 32.2 and 31.9 per cent respectively, a noticeable decline.

Of more interest to this study is the proportion of people in their twenties and early thirties who are in what might be called the "accumulative" stage of the life cycle. We hypothesize that this group buys housing, consumer durables, and automobiles at a faster rate than other age groups and has grown as a proportion of the population, particularly since 1971. In general, the proportion of the population under age 15 is falling, while the proportion of those over 64 and between 20 and 34 is rising.

2.2 Immigration

Immigration minus emigration gives a net immigration figure for any given year. Data on net immigration are published annually and can be affected by a number of factors. For instance, the amount of net immigration is affected by economic conditions in Canada. In the 1961-62 recession, net immigration was negative, while in the mid-1970s, when Canada's nominal GNP was growing rapidly, net immigration exceeded 100,000 people per annum. In the early 1980s, unemployment rates increased in Canada, and net immigration fell to about one-third of its previously high level. From 1960-61 to 1985, the average net immigration amounted to 62,836

per annum, gross immigration amounted to 134,388 per annum, and emigration amounted to 69,266 per annum. Table 2-3 contains these data.

Net immigration accounted for 31 per cent of the growth in population in the 1976 to 1981 period with an annual average of 74,000 people. In the 1981 to 1985 period when the economy was much weaker, net immigration accounted for an annual average of 54,900 people. In turn, the lower growth rate of the population due to net immigration will mean a smaller increase in GNP, a smaller increase in tax revenues, and obviously a smaller increase in support spending (language classes, family allowances, etc.). During the economic boom of the post-1985 period, net immigration has again increased. If fertility rates remain below replacement levels, net immigration will make up a higher percentage of Canada's population growth.

It is often forgotten that immigrants tend to have a given age distribution and consequently will join the Canadian population at a particular stage in the life cycle. Thus, in the majority of cases, new immigrants are in an accumulative stage of the life cycle. Table 2-4 demonstrates that 49.2 per cent of new immigrants were between the ages of 15 and 34, when consumer durables, housing, and family formation are of primary importance. In contrast, only 39 or 40 per cent of the total Canadian population are in this age group. It is also a time of life when health and energy permit extra work (overtime or second jobs) which combines with spending patterns so that these individuals are normally net contributors to the public sector. Data on the usage of education facilities, health care, and public assistance programs suggest that this age group does not constitute a drain on the public sector, but will expect to do so as they age.

Table 2-5 demonstrates the diversity of the skills that immigrants bring with them. Of the immigrants between 1979-1984, 43.5 per cent expressed an intention to work, leaving 434,255 immigrants intending not to work. In 1984, 24.7 per cent of the immigrant population was 15 and under or over 65 and thus would not express an intended major occupation. As well, 53 per cent of female immigrants between 20 and 64 years of age did not express an intended major occupation, which may reflect the cultural norm that the head of the household should bring home the pay cheque. This is a clear difference between immigrant and domestically-born individuals and indicates that immigrants do not take as many jobs as is sometimes suggested. However, labour force adjustments take place. The 1981 Census indicates that foreign-born women have slightly higher labour force participation rates than do Canadian-born women if the age differences between the two groups are adjusted (Boyd 1987; McLaughin 1985; Seward and McDade 1988). Some differences in consumption patterns may result from the greater preponderance of single-family earners resulting in the need for a control for the number of incomes in the family, as well as family income size.

Table 2-6 details immigration by marital status. Unfortunately, no data exist to indicate how many immigrants arrive in family units. For instance, almost all immigrants in the 0-14 age group arrive as dependents with at least one parent. Consequently, purchase/expenditure decisions are made by the family unit rather than by the child. The extended family is much more common in immigrant households and thus expenditure decisions will differ from a nuclear family household.

2.3 Family Structure

We are interested in how individuals combine into families because consumption decisions tend to be made, at least in part, by the family unit. Whatever the expenditure allocation between individuals, there is implicit or explicit family agreement on at least major expenditures. As

family structure changes, expenditure decisions must also change. In single-parent families, not only are income sources different, but so are the decision-making pressures.

Whether to have children, whether to buy or sell a house, whether to live in a given community, whether to buy certain labour-saving appliances and other consumer durables, whether to buy a first or second car, are all decisions made within the family unit by the household head and spouse if present. Whether both spouses work outside the home is also a joint decision since a disagreement on this issue above reduces the likelihood of the family unit's survival. Consequently, family income and family expenditures are the unit of analysis. Regardless of how the actual decision is made, it has ultimately been subject to family decision-making. If both spouses work and one agrees to pay the mortgage or rent while the other one agrees to buy the food and clothing, overall decisions about what ought to be purchased have been made jointly.

It is clear from Table 2-7 that the family unit is still an important unit of analysis. A census family is defined as "husband and wife, or a lone parent, regardless of marital status, with one or more children never married, living in the same dwelling".

In 1986, there were 9,046,933 occupied private dwellings. Only three per cent of those living in family households were reported as non-family individuals, and of those two-thirds were living with relatives. Of non-family households, 67 per cent consisted of one person usually widowed, divorced, or married individuals living alone.

Tables 2-8 and 2-9 illustrate the family structure in 1986, while Table 2-9 compares that structure to previous years. It is clear from Table 2-9 that two-member households increased by 70 per cent between 1971 and 1986, while large families of eight or more members declined by 10 per cent in the same time period. Even families with five members declined in number, although only by three per cent.

Many factors have affected families in Canada since the Second World War. Specifically, there has been a reduction in extended family living arrangements. While the data to support this statement can at best be proxy data, sociologists tell us that this phenomena has been caused by an increasingly more mobile society.

Other changes in the family structure are evident, particularly the ever-increasing number of single-parent families. Between 1981 and 1986, single-parent families increased by 19.6 per cent from 714,005 to 853,645. Those headed by males increased from 124,180 to 151,745 while those headed by females increased from 589,830 to 701,905 or 22.2 and 19.0 per cent respectively. Divorces have created more families in which one spouse has been forced to make the decisions for two. Some individuals have created a family without the benefit of spouse. Unattached men and women have legally adopted children, and some women have born children without acknowledging the biological father. The number of two-earner families has also increased greatly, and the number of children per family has declined (see Table 2-10 and 2-11). These two changes in family structure are likely connected and, although not the subject of this paper, suggest an impact on spending habits. In particular, a decline in the number of children means a decline in the amount of money spent on material goods (second car, restaurant foods).

Table 2-10 shows the drastic increase between 1979 and 1987 in participation rates for married women, most noticeable in the 25 to 44 age group, but true in all age groups. This trend cannot continue at the same pace, but it is now firmly established that married woman work outside the home and will continue to affect consumption patterns. This also contributes to the postponement of childbearing until later years. Table 2-11 suggests that the fertility rate for all age groups has dropped since 1960, but has dropped least for those between the ages of 25

and 34. In the 30 to 34 age group, it actually rose between 1975 and 1980 which is consistent with decisions by couples to establish careers and make housing and consumer durable purchases prior to having children.

All these factors lead to changes in decisions about expenditures. As more two-earner families exist, there is less emphasis on children and human capital investment and more on material goods. As single-parent families become more common, day care expenditures increase relative to other expenditures. Where previously the extended family may have provided the day care, it is now purchased.

Undoubtedly differences exist in family factors by age and by birthplace. For instance, it is hypothesized that more immigrants have extended families living under one roof than do the Canadian-born. Similarly, arranged marriages and other marriage traditions mean that fewer single-parent families exist in some immigrant groups, just as the divorce rate varies among Canadian-born religious groups. Thus, it becomes important to control for age, birthplace, and family structure in any analysis of expenditures.

2.4 Conclusion

In this portrayal of recent changes in age, immigration, and family structure trends, we have attempted to put into context some of the variables discussed in this study. It is evident that the trends to older median age, higher levels of net immigration, larger numbers of single-parent families, significant increases in two-income families, and a decrease in family size have been firmly established. Future work on expenditure patterns must take these demographic factors into account.

It is important to control for changes in the makeup of the population when examining spending patterns. Ideally, comparisons would be made among families of the same size, whose family head had identical age, education, and income and differed only in place of birth. Since such statistics are impossible to derive, we can only control for differences in a limited number of factors in some statistical analyses so that the relationship between spending differences and individual factors such as age, birthplace or family size can be determined.

Chapter 3: Micro Consumption Data And Demography

3.1 The Micro Data File

The data for the analyses which are presented in this chapter come from the 1979, 1983, and 1985 Statistics Canada, Survey of Family Expenditures; the data are for 1978, 1982, and 1984. In each survey, a sample of Canadian families was asked how they allocated their total expenditure among a large group of household items, as well as other questions related to the families' demographic structure. This enables us to combine expenditure patterns with demographic variables such as age, birthplace, and family composition at the micro level and is one way to examine propensity to spend on various expenditure items.

Since the family may be defined differently in the Survey of Family Expenditures it is useful to note its description. The family includes unattached individuals and lone-parent families, as well as married couples with and without children, and married couples with other relatives or with unrelated persons. It is also possible to categorize each family according to the number of adults (i.e., persons 16 years and older) and the number of children (i.e., persons 15 years and younger). Both of these aspects of the family will be utilized in the study.

In order to enlarge the number of observations, the data from the three surveys are combined into a single composite file which contains 17,121 observations where each unit of analysis is a family made up of one or more persons. Since the 1984 survey contained only observations from urban areas with a population of 100,000 or more, observations in the other two surveys from rural areas and from urban areas with less than 100,000 persons are omitted. Thus the units used in this chapter are found in Canada's largest urban areas.

In order to keep this chapter comparable to the material being reported in chapter 4, the tables in this chapter sometimes report only the 11,740 cases in the 1982 and 1984 surveys. However, in the tables breaking down expenditure patterns into age, birthplace, and family structure, the results with and without 1978 are reported. It will be noted that whether referring to the composite file of 17,121 observations or to the smaller 1982 and 1984 files, there are no changes in pattern and very minor differences in the numbers which are not statistically significant. For this reason, the smaller file is viewed as being an accurate data file on which to base our observations.

The following percentages will give the reader a "feel" for the characteristics of the composite (which includes 1978) file. Of the heads of households, 72.7 per cent are male and 27.3 per cent are female. Of these, 65.5 per cent are married, 14.9 per cent are single, and 19.6 per cent are some other marital status. In terms of age, 7.7 per cent of heads are 24 years or less, 25.7 per cent are in the 25 to 34 age group, 20.1 per cent are in the 35 to 44 age group, 16.4 per cent are in the 45 to 54 age group, 14.5 per cent are in the 55 to 64 age group, and 15.7 per cent are 65 years or older. The family composition by number of adults (people over the age of 16) and children breaks down into the following percentages:

1 Adult, No Children	22.0
1 Adult, 1 or 2 Children	2.8
1 Adult, 3 or More Children	0.4
2 Adults, No Children	27.4
2 Adults, 1 or 2 Children	20.1
2 Adults, 3 or More Children	5.3
3 Adults, No Children	7.6
3 Adults, 1 or More Children	5.2
4 Adults, No Children	5.3
4 Adults, 1 or More Children	3.8

Of the total heads of households, 77.1 per cent are Canadian-born and 22.9 per cent are foreign-born. Of the foreign-born, 44.7 per cent were born in the United States, the United Kingdom, Northern Europe, or Western Europe, 32.2 per cent were born in Southern or Eastern Europe, and 23.1 per cent were born in some other world area. Of the foreign-born, 33.5 per cent arrived before 1946, 60.5 per cent arrived since 1946 but more than three or four years (depending on the survey) before the survey was taken, and 5.1 per cent arrived within three or four years of the particular survey.

A few non-demographic variables will be included as controls in the analysis in the next chapter. Of the total observations, 18.5 per cent of the heads have only elementary education, 43.4 per cent have only secondary education, 13.1 per cent have some post-secondary education, 11.4 per cent have a post-secondary diploma, and 13.5 per cent have a university degree. In 36.7 per cent of the total households, the spouse who is present has income. The head's mother tongue is English in 63.3 per cent of the households, is French in 19.5 per cent, and is "other" in 17.2 per cent.

We will now turn to expenditure patterns by certain demographic characteristics.

3.2 Income, Consumption, and Savings

The average propensity to spend measures the average amount spent per dollar of earnings. This figure can be greater than 1.0 in cases where dissaving is occurring as when someone borrows to consume or alternatively draws on past saving.

Much can be learned from relating total expenditure to income for different demographic breakdowns. As well, disaggregated expenditures tell us much about the impact of population changes (the aging trend, for instance). Therefore, this chapter undertakes to report total spending, total savings and disaggregated expenditures.

Using before-tax income as the base, Table 3-1 reports the average propensity to spend and save for different demographic groups. It also reports the average income and personal tax for each demographic group reported. When coupled with Table 3-2, which reports income sources by demographic group, much can be learned about expenditure and demography.

By age, the group spending the largest portion of income and dissaving the most, are those with a household head under 25 years of age. The only household group saving any significant amount is the group in which the head is 65 or older.

Income and taxes are at the lowest level for those age 65 or more. The under 25 group has the second lowest income level and taxes. Yet expenditure and saving behaviour differ greatly. Two explanations appear to be relevant. Younger people are in an accumulative period of their lives while those 65 or older often divest themselves of large houses and attendant consumer durables. The latter group was young during the depression years and may have a different attitude towards spending than will future generations. This is somewhat speculative; future studies may be able to determine its accuracy.

The pattern differences for sources of income for those 65 or older, and to some extent for the 55 to 64 age group, are clearly noticeable. All other age groups receive significantly more in wages and less in transfers and interest.

By country of birth, those arriving from outside North America and Europe make the largest expenditures, spending on average ninety-six cents of every dollar of income. Income and taxes do not appear to differ significantly by region of birth but spending patterns do. Recent immigrants are more likely to come from "the rest of the world" and are more likely to accumulate consumer durables, such as furnishings and automobiles, than earlier arrivals.

Those who arrived in recent years have a higher average propensity to spend at ninety-two cents of every dollar earned before tax. Recent arrivals dissave regardless of age group. No households headed by individuals aged 24 years or less are reported among those who arrived in the group labelled distant arrivals. Families who spend more than income, on average, are those with household heads 35 to 44 years in age. For the overall group, average propensity to spend is less than one.

Differences in income and taxes are not significant, particularly between distant and recent arrivals. For income source, distant arrivals behave much like the 65 or older group with over 50 per cent of their income being in the form of transfer payments.

By family structure, as expected, the group with the lowest average propensity to spend is married with no children. Those married with the youngest child over five years have an average propensity to consume that is only slightly higher than those married with no children. Single parent families have an average propensity to spend that is greater than one which indicates dissaving.

Single parents have the lowest incomes but pay more than 10 per cent in personal taxes. Other single individuals also have a low income level but considerably higher personal tax levels. Married couples with the youngest child over five years had the highest incomes and the highest personal taxes.

As expected, those families with one adult and one or two children have an average propensity to consume that is greater than one. Where there are three or more children with one adult, the average propensity to consume is even greater. At the other extreme, families with three adults or four adults (adults are in this survey as anyone over age sixteen) have the lowest average propensity to consume and the highest average propensity to save, but this is based on relatively high incomes. Over half of families with four adults present have a head of household between 45 and 54 years of age when incomes are at a peak and consumer durables have already been accumulated. Similarly, over half the families with three adults present have household

heads between the ages of 45 and 64. Compare this with the fact that four-fifths of single, adult families with children present are under age 44 when incomes are lower, and consumer durables are still being acquired. Over half of families with two adults are under the age of 34 or over the age of 64; the large contingent of the former may explain their higher average propensity to consume than three adult or four adult families.

Those families with one adult experienced the lowest level of incomes and also the lowest level of personal taxes. Incomes and personal taxes are highest for those families consisting of four adults. One-adult families receive a large portion of their income from transfer payments, and a much smaller portion from wages, than do family types with a larger number of adults present. Families with two adults or two adults and one child are also highly dependent on transfer payments. Two-adult families contain a number of senior citizen families.

Families in which the spouse has full- or part-time employment have the lowest average propensity to consume and the only positive average propensity to save. Single males have the highest average propensity to consume. Male-only households have a high dissaving rate but also have higher incomes and pay more taxes than families headed by single females. The real difference lies in the much lower expenditure levels of single female-headed families.

Single female-headed families include those where there are children (marriage breakdown, young widows, and those single by choice) and those without children (senior widows, singles by choice). The many differences between these groups cannot be captured here. Single female-headed families derive the largest portion of their income from wages, followed closely by transfer payments, which shows how averaging different groups affects the results. Interest receipts are relatively high when compared to other groups in this breakdown which may reflect the older women within this category.

When both spouses work, interest income is very small which presumably reflects the dominance of young, childless couples in this category. There is no accumulated pool of savings on which to receive interest. Those couples with young children may also find it difficult to save, making it impossible to rely on interest income and creating a perceived need for two incomes.

3.3 Disaggregated Expenditures

In examining the overall pattern of spending and saving, we have noted that income and stage of the life cycle as well as other factors such as sex, size and type of family have an impact. By looking at disaggregated spending, we can examine which items are likely to experience increased demand as shifts occur in the demographic makeup of the population. Tables 3-3 to 3-17 report these results in various ways.

Table 3-3 shows the average propensity to spend by the age of the head of household. Note, for instance, that those under 25 years spend an average eighteen cents per dollar of spending on food, while those 65 years or more average twenty-six cents per dollar of spending on food. Recreation, education, tobacco and alcohol, transportation and clothing expenditures are lower for households where the head is 65 years or more of age, while expenditures for the first three items are highest for those households where the head is under 25 years. Shelter and household operations take a larger proportion of income for households where the head is between 25 and 34 or over 64 years.

Table 3-3 indicates that the proportion of total expenditures allocated to food generally rises with age in Canada. This is also the case in Australia (Australian Bureau of Statistics 1986); those under 25 years allocate 16.1 per cent of total expenditure to food; the percentages for ages 25 to 34, 35 to 55, and over 65 years are 18.1 per cent, 20.5 per cent, and 22.6 per cent respectively. In Canada, the proportion of total expenditures spent on shelter generally declines with age to age 65, and then rises noticeably for those over 64 years. Australian data show the same pattern; the percentage allocated to current housing costs falls from 17.5 per cent for those under 25 years to 8.3 per cent for ages 55 to 65, and rises to 11.1 per cent for those over 65 years.

Table 3-3 indicates that the proportion spent on clothing generally rises until age 45 to 54 and then declines for the two older age groups. The Australian data indicate the same pattern. Clothing expenditures rise from 5.9 per cent for ages 25 to 34 to 7.2 per cent for ages 45 to 55 to 6.3 per cent for over age 65.

The proportion of spending allocated to household furnishings in Canada generally declines as age increases. This trend is less clear in Australia; those under age 35 allocate about 8.5 per cent to household furnishings; those in age groups 35 to 44 and 45 to 54 allocate 6.9 per cent and 7.2 per cent respectively. Those in the two oldest age groups spend 8.1 per cent and 7.2 per cent of total expenditure on household furnishings. Thus the pattern tends to be U-shaped rather than declining with respect to age.

The pattern for transportation is similar for both countries; age groups 25 to 34 and 35 to 44 are lower than those groups aged 24 or less, 45 to 54 and 55 to 64. The proportion declines for those 65 years and over.

The trend for allocations to health care is similar in both Canada and Australia. Higher age groups allocate more to health care. The proportion allocated to health care tends to be 1 to 1.5 per cent higher at each age group than in Canada. In general, the allocation of total expenditure among the categories tends to show the same patterns by age groups in Australia, as Table 3-3 indicates for Canada.

Table 3-4 shows the average propensities to spend according to breakdowns for country of origin and for time of immigration. The Canadian-born is the standard of comparison for both breakdowns. Sizeable differences exist between recreation expenditures by the Canadian-born and those immigrating from non-European countries. A similar significant difference exists in expenditures on tobacco and alcohol, and an opposite significant difference exists in education expenditures. Those from the southern and eastern European countries spend the largest portion on food.

In Australia, as in Canada, the foreign-born allocate more of their total spending to food than does the indigenous population. The same holds true for spending on health care and household operation. In Canada, the foreign-born seem to allocate more to shelter expenditures, to clothing, to recreation, and to tobacco and alcohol. In Australia, little difference exists between the foreign-born and the Australian-born for expenditures on shelter and recreation. The foreign-born allocate more of their total spending to clothing and less to alcoholic beverages (Australian Bureau of Statistics 1986) (see also Table 3-4).

Table 3-4 also details differences according to date of arrival. Distant immigrants spent a significantly larger portion of each dollar on shelter, health care and food (perhaps reflecting an age and consequently an income difference) and considerably less on transportation, education, and recreation. The most recent immigrants spend a considerably larger portion of earned income on household furnishings, transportation, and education and a smaller portion on tobacco and alcohol and health care than do the Canadian-born or previous immigrants.

Table 3-4 indicates that the foreign-born allocate a larger proportion of total spending to food, the longer they live in Canada. The Australian data show the same trend, although immigrants of longest duration allocate less to food than in Canada: about 17 to 20 per cent (Australian Bureau of Statistics; Williams 1981). Australian studies show a significant decrease in the allocation for shelter and on current housing costs the longer the foreign-born remain in Australia (Australian Bureau of Statistics 1986; Williams 1981; Baker 1985). This does not appear to be the case in Canada where the proportion rises with time spent in Canada. The Survey of Family Expenditures for 1984 alone allows a more narrow breakdown by arrival year and shows that shelter allocation follows an erratic path. Those who arrived from 1981 to 1984 allocate 23.8 per cent of total expenditure to shelter. This rises to 27.1 per cent for those who came between 1978 and 1980 and then falls to 26.5 per cent for those who arrived between 1966 and 1975. It falls again to 24.9 per cent for those who entered from 1946 to 1965. Those who arrived before 1946 allocate a relatively high 32.9 per cent to shelter. In both countries, the proportion allocated to household furnishings declines with time spent in the country. The same is generally true for transportation although the decline is less marked in Australia. The percentage spent on health care increases with time spent in both countries which is probably due to the aging process.

When place of birth is broken down for some ages, as in Table 3-5, the pattern is consistent. Food expenditures as a proportion of total spending rise as age rises. Shelter expenditures are higher for the early middle years and for the elderly regardless of the birthplace of the household head.

Table 3-6 reports the breakdown of birthplace for some education levels. No matter where the head of the household was born, expenditures on food or tobacco and alcohol as a proportion of total spending decline as education increases. On the other hand, expenditures on household operation, clothing, reading materials, and education increase as a percentage of total spending as education rises. For other disaggregated spending categories, the same consistency does not exist. Note, however, that the category "the rest of the world" spends less than other birthplace groups on tobacco and alcohol, even with the education pattern imposed.

Table 3-7, which concerns place of birth by region of Canada in which the head of household currently lives, indicates a marked consistency in Canadian regions. It matters little where the head of household was born; expenditures as a proportion of total spending are highest in British Columbia and lowest in the Atlantic Provinces (those born in the U.S. or north or west of Europe spend less as a proportion in Quebec than in the Atlantic Provinces). Again, the lower spending on tobacco and alcohol by those from the rest of the world is noticeable.

Tables 3-8 to 3-10 report respectively the time of arrival broken down by age, education, and the region of Canada in which the household head is resident. Here, there is less consistency in the results, although those 65 or older spend more on food and shelter as a percentage of total spending than do other age groups reported, and university graduates consistently spend a larger portion of total spending on reading materials and education and a consistently smaller portion of total spending on food, personal care, and tobacco and alcohol. Across current locations, distant

arrivals tend to behave more like older people. Housing or shelter captures a larger portion of spending in British Columbia while clothing consists of a smaller portion of spending in that province. Tobacco and alcohol as a percentage of spending for recent arrivals is less in all geographical areas.

Table 3-11 reports the breakdown of spending for family units with and without spouses and according to employment status of the spouse. Differences exist between male and female households for those units where no spouse is present. Male households allocate a greater proportion of expenditure on transportation, recreation, and tobacco and alcohol and a considerably lower proportion on shelter, household operations, furnishings, clothing, and personal care than do female households. Age dominates for both males and females when it comes to expenditures on clothing, tobacco and alcohol, education, health care, and personal care (Table 3-12).

Households with working spouses spend proportionately more on household operations, furnishings, clothing, transportation, recreation, and education while households without a working spouse spend proportionately more on food and shelter. Two explanations are possible. First, a working spouse provides sufficient income to purchase more luxuries. Second, household conveniences and extra clothing and transportation expenditures may be required. That recreation expenditures and savings rates of families with a working spouse are proportionately higher may be an indication that these families are the *nouveau riche*.

Expenditures on food, household operation, furnishings, and personal care tend to be proportionately low for unattached individuals (see Table 3-13). On the other hand, expenditures on recreation, reading materials, education, and tobacco and alcohol are relatively high. Married couples with no children spend a higher proportion on transportation than any of the other demographic groups reported here. Expenditures on health care are also high for this group. Since unattached individuals and married couples without children could be young, middle-aged, or elderly, the numbers tend to blur these differences.

The only categories in which households with children under the age of five have the highest proportion of income are miscellaneous and household furnishings, which is consistent with expected savings patterns of this age group. Those with the youngest child between age five and fifteen spend a higher proportion on clothing, recreation, and education than do any other demographic group. This may reflect the pressures children bring to bear on family spending.

Single-parent families have to spend a larger portion of expenditures on food, shelter and household operation. Personal care expenditures also are high for this demographic group. The Australian data also indicate that single-parent households spend proportionately more than all households on food, shelter, and household operation. As in Canada, single parents spend proportionately less on transportation, health care, and recreation.

On the other hand, unattached individuals have a slightly different pattern in Australia than the Canadian pattern described above. While unattached Australians spend a lower proportion than the average on food, they allocate greater proportions to household operation, furnishings, and personal care. They also spend proportionately less on clothing and footwear. Both unattached Canadians and Australians spend a higher percentage of total spending on recreation and alcohol than the average of all households.

Table 3-13 shows that a married couple with young children spends proportionately more than a couple with no children on shelter, household operations, and household furnishings. In Australia, the same holds true for shelter and household operations, but married couples without children allocate a larger proportion of their total expenditure to household furnishings than do

couples with children. In Canada, couples with young children allocate less to clothing and transportation than do couples without children. The trend is similar in Australia, but differences are very small. Table 3-13 indicates that proportional allocations to shelter, household operations, and household furnishings decline in families with older children (and probably with more children) while the percentage spent on clothing rises. The Bureau of Statistics' data show exactly the same trend in Australia.

Table 3-14 details disaggregate average propensities to consume by family type. Some results are worth noting. First, families which spend the largest portion of income on food and shelter necessities are those with one adult and three or more children (large, low-income families). Recreation and education expenditures tend to claim the largest portion of family income for those families with three or four people over age 16. This may reflect the high incomes of such families, the income elasticity of demand for recreation and education or the age of family members of this group (older teenagers, university students and middle-aged parents). Tobacco and alcohol and transportation spending is a higher proportion of expenditure in families without children (singles, couples, three or four people over age of 16) than in households where children are present.

While the numbers in Table 3-14 and Table 3-15 differ, the patterns are identical. Note that without the 1978 data, shelter as a proportion of total spending increases, while food as a proportion of total spending decreases. The same observation can be made about Tables 3-3, 3-4, 3-11, and 3-13. In Table 3-15, families without children spend larger portions of total spending on transportation and health care and smaller portions on shelter.

A comparison of Australian and Canadian data indicate that households with three or more children spend the largest proportions of total expenditure on food (Williams 1981; Table 3-14). The proportion spent on alcohol and tobacco in Australia is highest for families with three or more adults, while in Canada the highest proportion occurs in households with only one adult. Williams finds that the percentage devoted to clothing is positively related to size of household and the number of children. This is also true for Canada. In both countries, there is evidence of economies of scale in shelter expenses. The percentage of total expenditure devoted to shelter tends to fall with larger households although this effect is more marked in Australia. The percentage of total expenditure devoted to durables and to medical care tends to rise with the presence of children in Australia but not in Canada, as shown in Tables 3-14 and 3-15. Here the proportion allocated to these items is often lower in families with children as the number of children increases. Therefore, there seem to be more differences between Canada and Australia when family size and composition are compared.

Given the dimensions of Table 3-16 we will examine only some disaggregated spending categories in relation to age of the head of household. In general, one-adult families spend a larger proportion on food and shelter the older the adult. This is also largely true for two-adult families. However, three- and four-adult families do not fit the same pattern. There is no age pattern to spending on transportation or education. The trend to decrease spending with age on tobacco and alcohol is contradicted in three- and four-adult households.

In Table 3-17, we have introduced a new consideration that the level of total spending, as we have argued elsewhere, is a proxy for permanent income. Although we have reported only some age groups in Table 3-17, some patterns are evident. Food is a larger portion of spending for those over age 55 and a smaller portion of spending at any age, the larger total spending. Shelter also constitutes a smaller portion of total spending, the larger total spending. However, as a portion, recreation, clothing and transportation tend to grow as total spending rises. Spending

on education, tobacco and alcohol, and household operation as a proportion of total spending cannot be easily categorized since variations exist across age groups and total spending levels.

3.4 Conclusion

In this chapter, we have demonstrated that the propensity to consume various items of consumer expenditure differed among age groups, family composition, and birthplace. In the next chapter we will discuss the regressions we have reported. We will compare the spending habits of those who immigrated earliest with seniors and with other Canadians. We will also consider the influence of age and time of immigration on assimilation to Canadian habits and attitudes for those who immigrated from northern and western Europe or the United States.

Chapter 4: An Analysis of Household Demographic Structure and Consumer Expenditure with Other Factors Held Constant

4.1 Introduction to the Regression Analysis - Micro Data

If, as shown in the previous chapter, the propensity to consume various items of consumer expenditure differs among age groups, family compositions, and birthplace, do these differences remain after accounting for other determinants of consumer spending such as total expenditure (used as a proxy for permanent income) and educational attainment? Our earlier work (1987) suggests that differences do remain for different birthplace groups, but that the study used data for 1982 only and did not examine age groupings and family composition directly.

Economic analysis has traditionally looked at this question by assuming that the consumer tries to maximize utility, subject only to relative prices and an income constraint (Ketkar and Cho 1982). Demographic factors have been added, either as affecting consumer preferences or influencing the traditional variables of relative prices and permanent income. Pollak and Wales (1978) allow for the first procedure by assuming that only households with the same demographic structure have the same demand functions. Becker and Stigler (1977) argue that the supposed differences in tastes and preferences among households that were thought to influence consumer spending are really due to differences in relative prices and permanent income. Demographic differences among households affect prices and incomes which then react on spending.

We will approach the question by looking at demographic factors which influence consumer expenditure directly, recognizing that these factors can also affect relative prices and permanent income indirectly. For example, the age of the household head most likely determines the stage of the family's life cycle and thus influences spending, since needs are known to differ through the cycle. Becker (1965, 1981) and Schultz (1974) describe an indirect influence in the following example. As a housewife's time becomes more costly due to rising wages for women in the labour market, production of all household goods such as health, nutrition, and entertainment, become less time-intensive. The relative prices of time-intensive household goods will increase, causing a decline in quantities purchased. This, in turn, introduces changes in the way families spend their incomes on market-purchased products.

4.2 Some Analysis

The data used in the regressions are the composite file for 1982 and 1984 observations only, described in the previous chapter. There are 11,740 observations where the unit of analysis is the household. Merging two cross-sectional data files into a composite file provides a good set of data on the expenditure patterns of households and on several aspects of their socio-economic structures.

Data on price effects are nonexistent; therefore the price effects on expenditure will not be examined. Price effects are assumed to be the same for all households in the sample for each cross-section taken by itself. Prices did change from 1982 to 1984 across samples or surveys. This will be partly captured by including a binary variable in the analyses which equals one or zero, depending on the year in which any particular observation appeared. The effects of price

changes on consumption would pose more of a problem if the dependent variables were expressed in absolute expenditure levels. However, in this chapter, the dependent variables are proportions of total expenditure allocated to a particular expenditure category (for instance, shelter expenditures include rental and home ownership expenditures). Such proportions are less likely to be influenced by price changes than are absolute dollar expenditures. As well, 1982 and 1984 are sufficiently close together that changes in expenditure allocations at the aggregate level of this study are not so likely to have taken place.

Total expenditure is defined as the sum of spending on food, shelter, household operation, household furnishings, clothing, transportation, health care, personal care, recreation, reading materials, education, tobacco and alcohol, and miscellaneous goods and services. The dependent variable, the variable to be explained in the regression analyses, is each category's proportion of total expenditure. The average values of total expenditures and the average proportions for various demographic groups were presented in the previous chapter.

Both the theory of the consumption function at the aggregate or economy-wide level and the theory of consumer behaviour at the microeconomic level, argue that a major determinant of those proportions is some measure of the household's income. Milton Friedman (1957) argues that consumption is more closely related to the household's permanent or long-term income level than to its actual income in any particular year. This suggests that the income variable used should be a proxy for permanent income, which has sometimes proven difficult to measure. In a study of household-level consumer spending in the United States, Houthakker and Taylor (1970) found that total household expenditure or consumption was a better proxy of permanent income than was actual income. Recent U.S. studies of family expenditures, which attempt to relate consumption to demographic factors, use total current expenditure rather than income as the explanatory variable (Ketkar and Cho 1982; Ketkar and Ketkar 1987). Therefore, the independent variable employed here as a proxy for permanent income is household total current expenditure as defined above.

Economic theory and mathematics suggests several forms for the empirical relationship between total current expenditure and the expenditure proportions (C.E. Leser 1963). If v_i is the amount spent on commodity group i, E is total current expenditure, and $X_i = v_i / E$, then some possible functional forms are:

(1) $X_i = \alpha_i + \beta_i \; E$
(2) $\log X_i = \alpha_i + \beta_i \; \log E$
(3) $X_i = \alpha_i + \beta_i \; \log E$
(4) $X_i = \alpha_i + \beta_i \; (1/E)$
(5) $X_i = \alpha_i + \beta_i \; E + Y_i \; (1/E)$
(6) $X_i = \alpha_i + \beta_i \; \log E + Y_i \; (1/E)$

where log is the natural logarithm, and α_i , β_i , and Y_i are parameters to be estimated. All of these functional forms have appeared sometime in various analyses of household consumer spending. Preliminary regressions of (1) through (6) indicated that forms (3) to (6) performed about equally well in explaining the proportion of total expenditure spent on the various expenditure categories. Recent U.S. studies with which we will compare results have used functional form (3), and therefore, we will use it as well.

The analysis includes other essentially non-demographic variables which are used as controls when looking at the effects of demographic factors on expenditure propensities. These variables are now described by their attributes or categories:

Education of the Head:

(1) Less than 9 Years of Elementary Education,
(2) Some or Completed Secondary Education (reference category),
(3) Some Post-Secondary Education,
(4) Post-Secondary Certificate or Diploma,
(5) University Degree,
(6) Not Stated.

Family's Geographical Location:

(1) Atlantic Provinces,
(2) Quebec,
(3) Ontario (reference category),
(4) Prairie Provinces,
(5) British Columbia.

Mother Tongue of Head:

(1) English (reference category),
(2) French,
(3) Other.

Each variable is a set of binary variables with a value of one if the person falls into the appropriate attribute category, and zero if not.

The first demographic variable, the age of the household's head, is included in the analysis in two ways. First, the analysis is carried out with the actual age of the household head as the independent variable; age enters as a continuous variable. Household head's aged 19 and under are all assigned age 19 and household head's aged 76 years and over are all assigned age 76 because of the way that the data are coded in the survey. In a second stage, age groupings are included as independent variables:

(1) age 24 years or less,
(2) age 25 to 34,
(3) age 35 to 44 (reference category),
(4) age 45 to 54,
(5) age 55 to 64,
(6) age 65 years or over.

In this set, five binary variables have the value of one if the person falls into the appropriate age group, and zero if not.

The second and third demographic variables concern the foreign-born. Birthplace is the second variable and has the following attributes:

(1) Canadian-Born (reference category),
(2) Born in the United States, North or West Europe,
(3) Born in South or East Europe,
(4) Rest of the World.

The third variable concerns the arrival year of the foreign-born population and is divided as follows:

(1) Canadian-Born (reference category),
(2) Before 1946,
(3) Arrived Three or Four Years Before Survey Date,
(4) Arrived More Than Three or Four Years Before Survey Date but after 1946.

These two categories are meant to distinguish recent arrivals from those who have lived in Canada a moderate time and from those who have been here a long time. Both the birthplace variable and the arrival year variable are sets of binary variables with a value of one if the person falls into the appropriate category, and zero if not.

Family status and its characteristics and composition are included in a number of variables. The first variable takes a value of one if the head has a marital status other than married or single, thus we can examine any differences in consumption patterns between those who are married or single and the growing group of persons with other marital status. A second variable measures household size as the number of persons in the family; this variable is continuous. The third variable is the sex of the head of the household; the included binary variable is equal to one if the head is female and omitted if male.

Although household size may influence the allocation among expenditure items, the family make-up of adults and children may also be important. Therefore, a variable to reflect these differences is included:

(1) one adult, no children,
(2) one adult, 1 or 2 children,
(3) one adult, 3 or more children,
(4) two adults, no children (reference category),
(5) two adults, 1 or 2 children,
(6) two adults, 3 or more children,
(7) three adults, no children,
(8) three adults, 1 or more children,
(9) four adults, no children,
(10) four adults, 1 or more children.

In the data used, persons aged 16 or more are counted as adults. This is a set of nine binary variables with the value of one if the family falls into the appropriate group and zero if not.

Finally, we have included a binary variable equal to one if the spouse is working full or part-time, to represent the growing number of spouses who work.

The data used in this chapter and in the previous chapter are pooled data from two cross-sectional samples of Canadian consumer expenditure. The regressions which are reported below utilize a type of covariance model (Kmenta, 1971) in which it is assumed that each time period is characterized by its own special intercept. This might, for example, recognize that relative prices change over the two samples (1982, 1984), which could affect the proportion of total consumption allocated to different spending categories. With two time periods, one binary variable is included in the analysis.

Ordinary least squares was first used to estimate the equations for the proportion allocated to each commodity group. Since it is assumed that budget shares are determined jointly by households, it would seem that a generalized least squares technique, such as seemingly unrelated regressions, ought to be used. Since the same aggregate expenditure and socio-demographic variables appear on the right hand side of all regressions, the generalized least squares technique equates to ordinary least squares (Zellner 1962; Ketkar and Ketkar 1987).

Since the dependent variables lie between zero and one, this suggests that a TOBIT analysis should be used in place of ordinary least squares. All of the regressions were run using a TOBIT analysis, and results were compared to those using ordinary least squares. The qualitative results are identical; the same independent variables have the same signs and the same levels of significance, whether ordinary least squares or TOBIT analysis is used. Second, because the data are cross-sectional, heteroscedasticity could pose a problem. Therefore, the regressions were re-run using White's heteroscedastic-consistent covariance matrix (White 1980). Although the econometric results are almost identical to either ordinary least squares or TOBIT analysis, the results from White's method are reported here and presented in Table 4-1.

With the previously established definitions of the independent variables in mind, we will now highlight the results of the regressions. Complete results are presented in Table 4-1. It is interesting to note that the proportion of total expenditure allocated to food, shelter, household operation, health care, personal care, reading materials, education, and tobacco and alcohol decline as total expenditure (our proxy for permanent income) increases. On the other hand, the proportion of total expenditure spent on household furnishings, clothing, transportation, and recreation rises as total expenditure increases. It is important to remember that proportions are not absolute expenditures; a falling proportion may result even when absolute number of dollars increases.

The computer program calculates a coefficient called "Beta", which assesses the relative importance of all the explanatory variables in explaining the dependent variable, after correcting any difference in unit measurement of the independent variables. Total expenditure is the most important explanatory variable in the regressions for food, shelter, household furnishings, clothing, transportation, and recreation; in several of these, this proxy for permanent income dominates. However, it is not the most important determinant and therefore does not dominate other variables for the proportion allocated to household operation, health care, personal care, reading materials, education, and tobacco and alcohol.

We will first examine the demographic variables. The age of the household head entered the analysis first as a continuous variable and secondly as a set of binary variables which represented age groupings. With age as a continuous variable, the proportion of total consumption allocated to food, shelter, household operation, transportation, health care, and reading materials increases with the age of the household head; while the opposite is the case for proportions spent on clothing, recreation, education, and tobacco and alcohol. The age of the household head is unrelated to the proportion spent for household furnishings and personal care. Ketkar and Ketkar (1987), using a similar analysis in a U.S. study, found that young households spend proportionally less than older households on food at home, personal care, household furnishings, transportation, and recreation, and more on rental housing as one aspect of shelter expenditure. These findings differ in some cases from the Canadian findings, but the American sample contains some rural households and included racial origin.

Food, shelter, and transportation together make up about 61 per cent of total expenditure. We would expect a significant shift towards those expenditure categories as Canada's population ages over the next twenty to thirty years. Thus, these three items would take up an even larger proportion of total consumption and would represent aggregate growth sectors.

The substitution of a binary variable for different age groups with the 35 to 44 group as the omitted attribute does show an increased proportion spent on food. This proportion rises from the under 24 group to the group aged 25 to 34, but both are below the proportion of the 35 to 44 age group. Groups aged 45 to 54 and 55 to 64 are both above the proportion for the 35 to 44 group, but little or no difference exists between the two older age groups. The oldest age group, 65 and over, has a proportion that is not significantly different from the proportion for the 35 to 44 group.

The shelter results are more complicated. The group under 24 years allocates significantly less of its total expenditure to shelter than either groups aged 25 to 34 or 35 to 44 which spend the same proportion on shelter. This corresponds to the results when age is continuous. However, those in age groups 45 to 54 and 55 to 64 allocate significantly less of their total expenditure to shelter than does the group aged 35 to 44. The proportion increases again for those 65 years and older. The relationship between age and the proportion of total expenditure allocated to shelter is a backward "S" shaped function placed on its side.

Groups aged 35 to 44 and 45 to 54 spend the same proportion on transportation while age groups, both above and below these two groups, allocate more of their total expenditure to this category. However, when age was continuous, higher ages allocated a higher proportion to transportation; the binary analysis indicates a "U" shaped pattern. Those under age 24 and those over age 64 spend more of every dollar on transportation than do those aged 35 to 44 and 45 to 54 by about the same amount. While both the 25 to 34 and 55 to 64 age groups allocate a higher proportion to transportation than for the middle-ages, those 55 to 64 spend a greater proportion than the middle-age groupings. Therefore, a positive relationship is evident when age is continuous.

The above discussion demonstrates that one type of relationship (in this case a positive relationship) can have three very different underlying structures. A population shifting towards older age groups will still likely allocate a larger proportion of total expenditure to food, shelter, and transportation, but the shifts for shelter and transportation will not be so marked as the analysis with age as a continuous variable suggests, because some of the youngest age groups also spend relatively high proportions on these sectors. Age as a binary variable gives greater information.

Negative relationships between age and the proportion of total spending allocated to education and tobacco and alcohol were reported earlier when age was a continuous variable. Both findings also hold when age is presented as a set of binary grouped variables. The proportion spent on clothing was also negatively related to age. This is also verified with the grouped age data except that those in the 25 to 34 age group allocate a lower proportion of total expenditure to clothing than do either those under 24 or 35 to 44. Otherwise, the negative relationship is confirmed.

We will now examine the birthplace variable. Compared with the Canadian-born, the foreign-born from Southern and Eastern Europe allocate a significantly lower proportion of total expenditure to reading materials, but no significant differences exist for other commodities. When compared to the same group, the foreign-born from the United States, Northern and Western Europe, including the United Kingdom, allocate a higher proportion of total expenditure to recreation and reading materials and a significantly lower proportion to food, furnishings and clothing. More recent immigrants tend to come from outside Europe and the United States and are grouped together here. This group allocates a higher proportion of total expenditure to transportation and a lower proportion to household furnishings and tobacco and alcohol than the Canadian-born, suggesting that birthplace has a relatively small and insignificant influence on consumers' allocation among spending categories, when other factors which affect consumption allocation are held constant.

Year of arrival in Canada was also studied. Those who arrived three or four years before each survey was taken allocate a higher proportion of total expenditure to clothing and a lower proportion to reading materials and tobacco and alcohol than do the Canadian-born. No differences were found for the other spending categories. The foreign-born who arrived in Canada after 1946 and up to three or four years before each survey, allocate a higher proportion to food, shelter, and household operations and a lower proportion to clothing, recreation, reading materials, and tobacco and alcohol than do the Canadian-born comparison group.

Many similarities exist between the foreign-born who arrived before 1946 and the Canadian-born. However, the former allocate a lower proportion of total expenditure to clothing, transportation, reading materials, and tobacco and alcohol and a higher proportion to food. The findings for arrival year combined with those for birthplace indicate that existing differences in allocation among expenditure categories are due to influences such as age, education, and income to a large extent and not to birthplace or time spent in Canada *per se*.

In household composition runs, household size is included as a continuous variable. As the size of the household increases, the proportion of total expenditure allocated to food and education rises and the proportion allocated to household furnishings, transportation, reading materials, and tobacco and alcohol falls. All other factors being equal, household size and the proportion of total expenditure spent on shelter, household operation and clothing are unrelated. The negative relationship for household furnishings and for transportation indicates significant economies of scale. One car or one sofa holds one or more people requiring no additional expenditure. If additional expenditure is required, it is less than proportional to the increase in household size. As household size falls and as the number of one-person families increases, spending as a proportion of income will fall on food and education and rise on household furnishings and transportation. Household size is the second most important determinant of the proportion of total consumption allocated to food, and household furnishings following total expenditure (the proxy for permanent income). In contrast, Ketker and Ketker (1987) found that expenditure patterns of households with three to four persons or five to six persons were not found to be different from the households with seven or more persons. The difference appears to be more marked in Canada.

The sex of the head of the household influences allocation among categories. Households headed by females allocate a higher proportion of total expenditure to shelter, household operation, household furnishings, clothing, health care, personal care and education than do male-headed households. Female-headed households allocate lower proportions of their total spending to food, transportation, recreation, and tobacco and alcohol. Sex of household head is the most important determinant in the case of personal care and the second most significant determinant for clothing and tobacco and alcohol. This along with the sheer number of expenditure categories which are

influenced by the sex of the household head indicates the importance of this factor in determining consumers' allocation even when other factors are controlled. This differs again from Ketkar and Ketkar's (1987) American study in which only 15 of 80 expenditure categories showed any difference between male and female-headed households. They observed that marital status and household size influenced more expenditure items than age or sex of the household head.

We questioned if a shift towards more households with a divorced, separated, or widowed head influenced consumption patterns. The analysis indicates that such households allocate higher proportions of total expenditure to shelter, household operation and tobacco and alcohol and lower proportions to food, household furnishings, clothing, transportation, health care, personal care and reading materials. Thus, if such households become more common, proportional spending may shift away from food, furnishings, clothing and transportation and towards shelter, all else remaining the same.

In light of these results on household size, we then considered the set of binary variables for the distribution between adults and children. To keep this manageable, only some selected comparisons for major spending groups will be noted. Adult-only households, are those with one, three, or four or more adults and are examined with two-adult households as the reference group. The proportion of total expenditure allocated to food rises with the number of adults for this group. The opposite is the case for shelter; the more adults there are, the lower the proportion of total expenditure spent on shelter. No difference was found among the adult-only households in the proportion of total expenditure allocated to transportation likely because of the economies of scale associated with a car. The proportion of total consumption allocated to clothing is higher for households with more adults. Adult-only households all allocated less of total expenditure to household furnishings than do two-adult households.

The growing number of households with one adult and one or two children can be compared to two-adult households with the same number of children. One-adult households allocate proportionally less of their total expenditure to food, clothing, health care, and personal care, proportionally more to shelter and household operation, and proportionally similar amounts to transportation, recreation and education. The sample also contains some households with three adults and one or more children. Many of these households are composed of two spouses with one child over age 15 and one or more children under age 16. Compared to one-adult families with three or more children, the former group allocates a higher proportion of total expenditure to clothing, health care, personal care, and education and a lower proportion to food, shelter, household operation, and transportation.

In the "traditional" household of two adults with or without children under age 16, no difference exists in the proportion of total consumption allocated to food, household furnishings, health care, and recreation. When children are present, a higher proportion of total expenditure is allocated to shelter, household operation, and personal care and a lower proportion to clothing, transportation, education, reading materials, and tobacco and alcohol.

Households with three adults or four adults with or without children allocate more to food than households with two adults with no children. The presence of children does not affect the proportion allocated to food in two-adult households. This does not hold true for shelter. Households with three or four adults spend proportionally less for shelter if no children are present, while households with two adults and children spend proportionally more. Transportation demonstrates a different pattern. The proportion of total expenditure allocated to transportation is consistently lower when children are present than in adult-only households.

The presence of a working spouse increased the proportion of total expenditure allocated to shelter, household operation, household furnishings, clothing, and personal care and lowered the proportion to transportation and tobacco and alcohol. No effect was noted on the proportion spent on food, although there could be a re-allocation within this category towards restaurant meals and meals prepared away from home. This could only be determined by examining disaggregated spending. Ketker and Ketker (1987) found that the employment status of the spouse influenced the expenditure pattern on only nine of 80 spending categories. They noted changes in allocations for food purchased away from home, domestic service, drugs, transportation, and reading materials.

When these various demographic variables are ranked in importance, size of household and family composition (children versus adults) are the two most important demographic influences followed, in turn, by the sex and age of the head of the household. Neither marital status, nor birthplace of the head of the household, nor the employment status of the spouse are so important. However, the relative influence among the demographic variables differs widely among the disaggregated consumption groups and would likely be even more pronounced if expenditure items were further disaggregated.

This section of the study hypothesizes that demographic characteristics of households are as relevant in determining consumer expenditure patterns in Canada as are measured income and other factors. The results unequivocally demonstrate the validity of this general hypothesis. Demographic factors such as employment status of spouse, family size and composition, the household head's age and sex as well as birthplace, and time spent in Canada if foreign-born, are found to be significant determinants of the allocation of total expenditure among major spending items in Canada.

Chapter 5: Policy Issues And Conclusions

This study provides evidence that expenditure patterns differ among age groups, between the Canadian-born and the foreign-born (by broad birthplace groups and time spent in Canada), among family sizes, between male- and female-headed households, and among households differentiated by the number of adults and children. These general conclusions substantiate similar findings by other researchers in Australia and the United States. However, the specific analyses in chapters 3 and 4 noted similarities and differences in Canadian, Australian, and American findings, warning us that comparisons are useful but are no substitute for carrying out further Canadian studies.

Many of the findings in this study will be of interest to both policy makers and researchers. Those concerned with immigration or with income tax policy will find the findings useful, as will those concerned with policies for the elderly and single parents. In the last section of this chapter, an effort is made to draw the findings together in a more general analysis and to consider how changes in the demographic structure of the Canadian population will affect different industrial sectors.

5.1 Micro Consumer Spending

The combined analyses of chapters 3 and 4 suggest that immigrants, at time of arrival, spend a larger portion of their incomes on household furnishings, transportation, recreation, and education. Our analysis attributes these differences more strongly to age and family makeup than to birthplace. Consequently, one might look upon immigrants as a substitute for a small domestic-born age cohort in order to avoid altering expenditure allocation in the future. For example, the number of 15 to 34 year olds is likely to decrease between 1985 and 2005 and could be enhanced by increasing immigration. As a result, policy makers may wish to emphasize age, household size and other demographic factors in the immigration admission process.

We found that age was the most significant demographic variable in the determination of consumer spending. Our data indicates a sharp fall in dollars allocated to consumer spending overall for the over 65 cohort. We know that the elderly have lower incomes than others. That they save out of these lower incomes suggests a frugality borne out of a drop in "needs" or from "learned" behaviour; our data do not permit us to say. Clearly, this question requires more study. It would be useful to examine spending by this group disaggregated for specific income groups or regions of residence to determine whether saving is a general phenomenon. Researchers may also need to look at longitudinal data on spending and savings to ascertain if those over 65 also saved when they were in younger age groups. Their current savings behaviour could then be attributed to their experiences during depression or war.

Our findings are of special interest to policy makers in the field of income tax law. First, we found that family size affects spending patterns, particularly for basic necessities such as food, clothing, and education. Income does not change the positive relationship between family size and spending on necessities. Policy makers may wish to reconsider the purpose underlying personal, spousal, and dependent tax credits in light of these expenditure patterns.

Secondly, household spending also varies tremendously for those families with several adults. Yet, the current income tax act does not provide tax credits for dependent children over age 18. This recent legislative change may deserve re-examination. Thirdly, we found that the sex of the head of household influences decisions about spending in many categories. Policy makers may consider sales and excise tax payments on products purchased by each group.

Households with a divorced, separated, or widowed head spend a lower proportion of income on necessities such as food, household furnishings, clothing, transportation, and health care. Research is required to understand why this is the case. Does shelter take so much income that little remains to allocate to other necessities? Research is needed to examine the differences among divorced, separated, and widowed heads of household and to determine the degree to which low incomes are the result of insufficient support for former spouses.

Much public discussion and policy prospectives have focused on single-parent families because they are predominately female and have relatively and absolutely low incomes, as the data in chapter 4 illustrate. Single-parent families spend proportionately more than other family structures on food, shelter, and household operations and proportionately less on transportation, health care, and recreation. Their level of dissaving is one of the highest of any family structure. The expenditure needs of this group require further study to determine differences by sex of parent and to compare female single parents to single females. A category such as shelter expenditure could also be broken down into rented quarters, owned quarters, expenditures on utilities, and other accommodation. This study has found that single-parent families do have significantly different spending and saving habits from other family structures. Researchers and policy makers may wish to devote major attention to this disadvantaged group.

5.2 Overall Considerations

Chapters 3 and 4 considered several demographic variables and their effects on the patterns of spending in Canada during the recent past. In each case, each demographic variable was examined on its own in relation to total expenditure allocations to different spending categories. This can only be considered a partial analysis because each effect was isolated alone, and because the feedback effect caused by changes in other independent variables was not studied. For example, the aging of a population could well influence average level of income, marital status, and the number of female heads of households. A greater proportion of foreign-born in the population might affect the mother tongue and educational characteristics of the population which would, in turn, feed back on spending patterns.

The micro analysis of chapters 3 and 4 could be made more general by putting the partial relationships into a simulation demographic economic model. Some or all demographic variables could then be changed in order to predict the effects on expenditure distributions and thus the relative strengths of variables, such as aging versus smaller households, could be evaluated. Such a general analysis assumes that the underlying structure of the spending relationships remains constant as variables within the simulation change, which may not, in fact, be true. However, simulation exercises, which are both time-intensive and major research efforts in their own right, are beyond the scope of this study.

In one attempt to bring the results of the present study together, we have summarized the major directions of influence which some demographic variables will have on spending categories investigated in chapter 4 (see Table 5-1). Chapter 4 investigated pure demographic effects separately because the analysis used there held constant other factors which affect spending. For example, aging affects the proportion of total expenditure allocated to food, clothing, transportation, etc., when the factors represented in the other variables are controlled.

What does this imply about the combined effects of several demographic changes on the proportion allocated to various spending categories? Assume a population which is older, has smaller households, more single heads, more female heads, more working spouses, and a higher proportion born outside of Canada. When aging and smaller households are examined in Table 5-1, the results indicate that an aging population with smaller sized households would allocate proportionately more to shelter, household operations, transportation, health care, and reading materials, and less to clothing and education. The overall effect on food, household furnishings, recreation, and tobacco and alcohol expenditures cannot be determined because the effects of aging and smaller households offset each other. Changes in economic policy may be required to re-allocate inputs, mainly capital and labour, toward growth sectors and away from relatively declining industries.

Data provided by DeVoretz and Akbari make it possible to calculate capital-to-labour ratios for several industrial sectors for 1981 in constant 1971 dollars; these are unpublished data which they obtained from Statistics Canada. If the sectors likely to lose relative demand are labour-intensive (i.e., comparatively low capital-to-labour ratios), then a relatively large number of workers may lose from employment as part of the input reallocation process. Clothing and shoe industries have relatively low ratios of 2.9 and 6.28 respectively. This is also the case for household furniture and lighting fixture manufacturing for which the ratios are 5.54 and 5.09 respectively.

Spending on education relative to total spending is also likely to decline. However, the data by DeVoretz and Akbari indicate a much higher capital-to-labour ratio for the education sector: 29.24. Although the effect on the education labour force is not significant in terms of this investigation, the redeployment of buildings in the sector has already led to controversy in many rural and central city settings. The recreation sector could also decline, at least in terms of the proportion of total expenditure allocated to that sector. Sporting goods and toy industries have a relatively low capital-to-labour ratio of 5.91.

There is some evidence then that the sectors which could decline relative to others are more labour-intensive, suggesting that labour withdrawal *could* be significant. However, long-term reallocation problems may be less severe if the growth sectors noted earlier are also labour-intensive. For example, more spending is likely to be allocated to shelter. The data by DeVoretz and Akbari suggest that the construction industry is relatively more labour-intensive with capital-to-labour ratio of 7.49, while heating equipment manufacturing has a high ratio of 17.1. The growth sectors of transportation, health care and industries associated with reading materials have relatively high capital-to-labour ratios:

- motor vehicle manufacturers	29.18
- motor vehicle parts manufacturers	47.38
- manufacturers of pharmaceuticals and medicines	25.70
- urban transit systems	73.80
- hospitals	17.49
- publishing and printing	20.10
- pulp and paper	96.72

Thus, the trend suggests that a population which is older and made up of smaller families will cause capital-intensive sectors to expand and labour-intensive sectors to contract. Three notes are required. First, the industries for which capital-to-labour ratios are calculated do not fit perfectly the sectors of demand or consumption which are used in this study. Secondly, all industries in each sector are not included in the ratios. Finally, as Table 5-1 indicates, other demographic changes, such as a higher proportion of foreign-born in the population, more single heads, more female heads or more working spouses, will, in some cases, partly offset or accentuate the probable effects of aging and household size. Much more work needs to be done on demand impacts on employment levels.

The notion of savings in this study is derived from a micro view rather than a national accounts definition of savings. The use of savings from the Survey of Family Expenditures also poses other definitional problems. For those reasons, this study emphasizes expenditure rather than savings. Existing data make it difficult to study savings patterns by demographic variables for individuals.

Our study shows the usefulness of disaggregating expenditures. Specific policy might be best based on an even greater disaggregation. As an example of the latter, researchers could break down shelter expenditures on a regional basis by ownership versus rental for various demographic groups prior to developing a "housing" policy. Our methodology, coupled with other data bases, could be a significant assistance in formulating policy details.

In conclusion, this study has demonstrated the importance of demographic factors on the consumption patterns of Canadians. As the face of the Canadian population continues to change, more detailed study is required to ascertain the impact of these changes on the economic and social fabric of Canadian life.

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TABLE 2-1

MEDIAN AGE FOR CANADA, AND FOR THE PROVINCES 1921-1981
PROJECTIONS, CANADA ONLY 1991-2051
(IN YEARS)

CENSUS YEAR	CANADA	NFLD	PEI	NS	NB	PQ	ONT	MAN	SASK	ALTA	BC
1921	24.0	--	24.8	23.7	22.3	20.9	26.8	22.8	21.3	23.5	29.8
1931	24.8	--	25.0	24.2	22.4	22.1	27.8	24.2	22.0	24.0	30.6
1941	27.1	--	25.9	25.9	24.1	24.1	29.9	27.4	24.9	26.3	32.1
1951	27.7	21.7	26.2	26.5	24.3	24.8	30.1	29.0	27.4	27.0	32.0
1961	26.3	19.3	24.5	24.9	22.4	24.0	28.4	27.7	26.6	25.4	29.8
1971	26.2	20.7	24.8	25.4	23.9	25.6	27.2	26.8	26.7	24.9	27.9
1981	29.5	25.0	28.5	28.9	27.8	29.7	30.2	29.7	28.8	27.4	30.7
1991	33.0										
2001	36.9										
2011	39.3										
2021	40.5										
2031	42.0										
2041	42.4										
2051	42.0										

Source: Canada. Statistics Canada. Population by Sex and Age, 1921-1971, 1981 and projection by David K. Foot, Canada's Population Outlook: Demographic Futures and Economic Challenges. Toronto: James Lorimer & Company, 1982. Table 3-9.

TABLE 2-2

DISTRIBUTION OF SPECIFIC AGES IN THE POPULATION
CANADA AND THE PROVINCES -- 1921-1986
(Percentages)

CENSUS YEAR	CANADA	NFLD	PEI	NS	NB	PQ	ONT	MAN	SASK	ALTA	BC
						0-14 Years					
1921	34.4		32.4	33.9	36.0	38.1	30.2	36.8	39.7	36.3	28.5
1931	31.6		31.9	32.6	35.5	35.6	27.9	31.3	35.4	32.6	24.6
1941	27.8		30.1	29.2	31.9	31.9	24.4	26.2	29.9	28.7	21.4
1951	30.3	39.1	33.4	32.6	35.6	33.7	27.0	28.7	30.7	30.5	26.1
1961	33.9	41.8	36.0	34.8	38.0	35.4	32.2	32.6	34.0	35.2	31.2
1971	29.6	37.3	31.7	30.5	32.0	29.6	28.7	29.0	30.3	31.6	27.9
1981	22.5	29.5	24.8	23.4	24.9	21.7	21.9	23.2	24.6	24.2	21.4
1986	21.3	25.6	23.7	21.5	22.8	20.5	20.5	22.2	24.4	23.6	20.5
						65 Years and Over					
1921	4.8		9.5	7.2	6.2	4.6	5.9	3.1	2.3	2.4	3.4
1931	5.6		10.0	8.0	6.7	4.8	6.8	4.5	3.4	3.5	5.5
1941	6.7		9.4	8.1	7.1	5.3	8.0	6.2	5.2	5.2	8.3
1951	7.8	6.5	9.9	8.5	7.6	5.7	8.7	8.4	8.1	7.1	10.8
1961	7.6	5.9	10.4	8.6	7.9	5.8	8.1	9.0	9.2	7.0	10.2
1971	8.1	6.2	11.0	9.2	8.6	6.9	8.4	9.7	10.2	7.3	9.4
1981	9.7	7.7	12.2	10.9	10.1	8.8	10.1	11.9	12.0	7.3	10.9
1986	10.6	8.7	12.5	11.7	11.0	9.9	11.0	12.6	12.5	8.1	12.2
						20-34 Years					
1921	23.4		20.4	25.6	21.7	22.6	24.0	24.0	24.1	24.8	23.8
1931	23.2		19.8	20.7	20.7	23.9	23.6	23.3	22.5	23.8	22.4
1941	24.7		22.9	25.2	23.9	25.0	24.5	25.6	24.2	24.6	24.9
1951	23.3	20.9	19.5	22.7	21.1	23.7	23.7	23.1	22.3	23.9	22.5
1961	20.1	18.0	16.6	18.5	17.5	21.0	20.4	19.1	18.4	21.1	19.0
1971	22.2	20.5	19.1	20.8	20.6	23.3	22.3	21.0	18.3	22.2	21.9
1981	26.7	25.6	24.2	25.7	26.0	27.7	26.0	25.3	24.5	31.3	27.0
1986	27.0	26.5	25.1	26.8	26.6	27.8	26.4	26.2	26.0	30.3	25.8

Sources: Calculated from: Canada. Statistics Canada, Census Division, Age, Sex and Marital Status. Ottawa: Supply and Services Canada, 1987, various tables.

TABLE 2-3

INTERNATIONAL MIGRATION
1961 TO 1988

	Immigration	Emigration	Net Immigration
1961-62[a]	70,000	74,000	-3,995
1962	74,586	76,740	-2,154
1963	93,151	83,563	9,588
1964	112,606	91,430	21,176
1965	146,758	105,307	41,451
1966	194,743	91,489	103,254
1967	222,876	108,462	114,414
1968	183,974	100,036	83,938
1969	161,531	90,089	71,442
1970	147,713	80,961	66,752
1971	121,900	70,097	51,803
1972	122,006	63,238	58,768
1973	184,200	78,483	105,717
1974	218,465	78,049	140,416
1975	187,881	70,716	117,165
1976	149,429	64,363	85,066
1977	114,914	61,409	53,505
1978	86,313	63,474	22,839
1979	112,096	54,748	57,348
1980	143,129	45,225	97,904
1981	128,618	43,519	85,099
1982	121,147	48,961	72,186
1983	89,157	49,594	39,563
1984	88,239	47,174	41,065
1985	84,253	47,652	36,601
1986-87[a]	123,076	41,090	81,986
1987-88[a]	150,804	41,440	109,364
Mean	134,577	69,308	65,269

Note: a) Fiscal year

Source: 1961-62: Statistics Canada. International and Interprovincial Migration in Canada.
1962-1985: Demography Division, Population Estimates Section. Employment and Immigration Canada.
1986-1988: Preliminary Postcensal estimates supplied by Statistics Canada, August 1988.

TABLE 2-4 A

AGE AND SEX OF 1979 IMMIGRANTS BY COUNTRY OF LAST PERMANENT RESIDENCE

	Asia	Australasia	North and Central America	Caribbean	Africa	Europe	South America	Oceania	Total
0-14									
Male	6,035	170	1,090	930	417	3,562	636	40	12,880
Female	5,292	160	1,074	964	419	3,384	630	38	11,961
15-24									
Male	8,416	78	605	782	327	3,226	719	117	14,270
Female	7,550	134	1,447	942	387	3,578	883	187	15,108
25-34									
Male	5,062	274	1,143	660	631	4,901	608	62	13,341
Female	4,851	274	1,710	549	482	4,234	574	50	12,724
35-64									
Male	5,081	140	1,210	457	576	3,751	644	81	11,940
Female	6,136	180	1,327	734	577	4,001	941	123	13,967
65 & over									
Male	955	11	265	100	64	823	113	21	2,392
Female	1,122	31	478	248	79	1,398	150	7	3,513
TOTAL	**50,540**	**1,400**	**10,349**	**6,366**	**3,959**	**32,858**	**5,898**	**726**	**112,096**

Source: Computer printout provided by Employment and Immigration, Canada.

TABLE 2-4 B

AGE AND SEX OF 1984 IMMIGRANTS BY COUNTRY OF LAST PERMANENT RESIDENCE

	Asia	Australasia	North and Central America	Caribbean	Africa	Europe	South America	Oceania	Total
0-14									
Male	3,528	37	1,233	616	280	1,789	365	35	7,901
Female	3,320	25	1,174	658	273	1,683	365	31	7,530
15-24									
Male	5,358	26	802	687	449	1,724	479	102	9,628
Female	5,428	62	1,331	820	380	2,386	585	153	11,147
25-34									
Male	4,540	96	1,297	551	751	3,072	463	56	10,839
Female	4,985	138	1,829	774	394	3,171	503	51	11,849
35-64									
Male	4,820	49	1,228	365	411	2,525	416	58	9,877
Female	6,729	59	1,399	859	411	2,871	677	96	13,102
65 & over									
Male	1,554	14	249	103	96	573	92	18	2,699
Female	1,624	20	458	197	107	1,107	138	16	3,667
TOTAL	**41,920**	**535**	**11,000**	**5,630**	**3,552**	**20,901**	**4,085**	**616**	**88,239**

Source: Canada; Employment and Immigration, Canada. Immigration Statistics, 1984. Ottawa: Supply and Services Canada, 1986. Table 4.

TABLE 2-4 C

AGE AND SEX OF 1987 IMMIGRANTS BY COUNTRY OF LAST PERMANENT RESIDENCE

	Asia	Australasia	North and Central America	Caribbean	Africa	Europe	South America	Oceania	Total
0-14									
Male	6,592	37	1,918	1,169	837	4,228	1,140	80	16,002
Female	5,986	56	1,770	1,159	785	3,986	1,082	80	14,905
15-24									
Male	7,347	45	1,099	1,483	763	3,140	1,139	101	15,117
Female	5,986	56	1,460	1,663	669	3,215	1,326	175	15,334
25-34									
Male	10,408	132	1,723	1,251	2,122	6,365	1,541	186	23,728
Female	8,525	170	2,190	1,795	1,096	5,685	1,517	176	21,154
35-64									
Male	9,038	123	1,818	896	1,154	4,769	1,279	113	19,190
Female	9,472	108	2,028	1,386	845	4,258	1,461	138	19,696
65 & over									
Male	1,555	9	316	153	105	668	123	9	2,938
Female	1,648	13	518	272	125	1,249	193	16	4,034
TOTAL	**67,337**	**753**	**14,840**	**11,227**	**8,501**	**37,563**	**10,801**	**1,074**	**152,098**

Source: Computer printout provided by Employment and Immigration Canada.

TABLE 2-5

INTENDED OCCUPATION (MAJOR GROUP) 1979-1987

	Number	Percentage
Entrepreneurs	9,131	1.9
Managerial, Administrative, Related	24,255	5.0
Natural Sciences, Engineering, Mathematics	41,203	8.6
Social Sciences and Related Fields	4,979	1.0
Religion	4,493	1.0
Teaching and Related	14,881	3.1
Medicine and Health	21,897	4.6
Artistic, Literary, Performing Arts and Related	5,037	1.1
Sports and Recreation	1,041	0.2
Clerical and Related	52,610	11.0
Sales	15,435	3.2
Services	46,231	9.7
Farming, Horticultural, and Animal Husbandry	16,900	3.5
Fishing, Hunting, Trapping and Related	1,128	0.2
Forestry and Logging	232	0.0
Mining and Quarrying	559	0.1
Processing	2,530	0.5
Food, Beverage Processing	7,964	1.6
Machining and Related	18,199	3.8
Product Fabricating, Assembling and Repairing	55,426	11.6
Construction Trades	22,929	4.8
Transport Equipment Operating	7,484	1.6
Material Handling and Related, n.e.c.	4,496	1.0
Other Crafts and Equipment Operating	2,822	0.6
Occupations n.e.c.	97,179	20.3

Source: Canada, Employment and Immigration Canada. Immigration Statistics, 1984. Ottawa: Supply and Services Canada, 1986. Table 17 and special tabulations, 16/08/88.

TABLE 2-6

MARITAL STATUS OF IMMIGRANTS, 1979, 1984 AND 1987

	Single	Married	Widowed, Divorced Separated
1979			
Males			
0-14	12,879	1	0
15-24	11,804	2,439	27
25-34	4,007	9,024	310
35-64	596	10,718	626
65 and over	37	1,805	550
Females			
0-14	11,957	4	0
15-24	8,783	6,278	44
25-34	2,548	9,829	347
35-64	758	10,359	2,850
65 and over	215	981	2,317
1984			
Males			
0-14	7,901	0	0
15-24	8,226	1,392	10
25-34	3,893	6,737	209
35-64	668	8,576	633
65 and over	52	2,081	566
Females			
0-14	7,522	7	1
15-24	7,351	3,770	26
25-34	3,897	7,609	343
35-64	1,366	9,025	2,711
65 and over	196	1,081	2,390
1987			
Males			
0-14	15,994	8	0
15-24	13,257	1,829	31
25-34	10,019	13,252	467
35-64	1,600	16,673	917
65 and over	45	2,305	588
Females			
0-14	14,890	14	1
15-24	10.451	4,846	37
25-34	6,130	14,483	541
35-64	2,083	14,426	3,187
65 and over	199	1,270	2,545

Source: 1984 Canada, Employment and Immigration Canada. Immigration Statistics 1984. Ottawa: Supply and Services Canada, 1986. Table 2. 1979 and 1987 special computer data supplied by Employment and Immigration Canada. Run date 16/08/88.

TABLE 2-7

POPULATION IN CENSUS FAMILIES, 1941-1986

Year	Total Population	Number of Families	Persons in Families	Average Number of Persons Per Family
1941	11,489,263	2,525,299	9,937,986	3.9
1951	14,009,429	3,287,384	12,216,103	3.7
1961	18,238,247	4,147,444	16,095,721	3.9
1971	21,568,310	5,053,166	18,791,904	3.7
1981	24,343,180	6,324,975	20,602,630	3.3
1986	25,309,331	6,734,980	21,194,655	3.1

Source: 1941-1961 Canada. Statistics Canada. Canadian Households and Families: Recent Demographic Trends, Catalogue 99-753E. 1971 Canada. Statistics Canada. Census Families in Private Households. 92-905, 1981 and 1986. Canada. Statistics Canada. The Nation: Families: Part 1. 93-106.

TABLE 2-8

FAMILY HOUSEHOLDS BY AGE AND SEX BY LIVING ARRANGEMENTS, 1986

		CENSUS FAMILY STATUS					
		TOTAL	Husbands Wives or Lone Parents	Children		Non-Family persons	
				In Husband wife families	In Lone parent families	With Relatives	Living with non-relatives
Under 15 years	M	2,742,410	--	2,351,295	339,945	34,645	16,530
	F	2,605,845	--	2,231,535	326,790	33,310	15,210
15-19 years	M	936,090	7,720	742,940	150,330	20,040	15,060
	F	893,080	42,630	676,365	139,100	18,210	16,780
20-29 years	M	1,810,160	872,380	666,050	169,875	56,555	45,300
	F	1,933,640	1,315,500	430,480	114,440	39,165	34,045
30-44 years	M	2,496,390	2,309,070	67,610	52,200	40,245	27,255
	F	2,650,190	2,541,200	35,000	34,524	24,090	15,375
45-64 years	M	2,358,350	2,019,050	5,400	21,240	24,530	16,370
	F	2,441,380	2,022,620	17,180	39,095	69,495	8,630
65-74 years	M	715,195	584,135	35	1,005	12,310	4,015
	F	877,175	500,495	30	1,310	42,660	3,090
75 years and over	M	344,560	240,715	10	65	16,840	2,850
	F	519,765	160,800	5	60	58,075	3,405
Total	M	12,227,675	6,033,075	3,833,330	734,665	205,165	127,370
	F	12,545,440	6,583,240	3,376,950	633,405	254,605	96,555

Source: Canada. Statistics Canada. The Nation: Families: Part I. Catalogue 93-106. 1987.

TABLE 2-9

FAMILIES BY NUMBER OF PERSONS

	1971	1976	1981	1986
2	1,583,445	2,011,460	2,400,200	2,690,575
3	1,043,675	1,220,610	1,398,245	1,536,715
4	1,054,065	1,287,745	1,520,510	1,644,200
5	661,060	685,595	677,750	640,475
6	357,825	311,935	266,595	168,475
7	183,720	116,290	63,245	36,305
8+	169,375	94,265	38,430	18,610

Source: Canada. Statistics Canada. The Nation: Families: Part 1. Catalogue 93-106, 1987.

TABLE 2-10

PARTICIPATION RATES OF WOMEN AND MEN BY MARITAL STATUS AND AGE, 1979 AND 1987

Age	Single		Married		Widowed, Divorced Separated		Total	
	Women	Men	Women	Men	Women	Men	Women	Men
				1979				
20-24	79.9	82.7	63.8	94.2	65.4	89.4	71.3	86.4
25-34	86.6	90.1	55.3	97.2	70.2	94.0	60.4	95.7
35-44	82.5	86.3	56.7	97.4	69.0	91.1	59.4	96.3
45-54	73.3	74.5	48.7	94.6	63.9	85.0	52.1	92.7
55-64	59.5	57.6	28.9	79.1	42.9	64.7	34.0	76.5
				1987				
15-19	53.9	57.4	62.6	67.8	-	-	54.3	57.6
20-24	78.7	82.1	73.4	92.9	57.2	97.4	76.3	84.4
25-34	84.9	90.0	70.7	95.9	72.3	92.6	73.7	94.0
35-44	84.5	85.1	72.0	96.6	78.1	91.2	73.7	95.1
45-54	78.2	76.5	61.7	93.8	69.5	88.3	63.8	92.2
55-64	48.5	52.7	32.1	68.6	40.0	55.3	34.9	66.4
65+	7.5	16.6	4.2	12.5	2.5	6.7	3.6	12.5

Source: 1979 Labour Canada. Women's Bureau. Women in the Labour Force 1978-79. 1980, p. 71, Table 25.
1987 Statistics Canada. Labour Division. Special Run August 12, 1988.

TABLE 2-11

AGE-SPECIFIC FERTILITY RATES, 1960-1985

	Fertility rates per 1,000 women by age groups						
Year	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**
1960	59.8	233.5	224.5	146.2	84.2	28.5	2.4
1965	49.3	188.6	181.9	119.4	65.9	22.0	2.0
1970	42.8	143.3	147.2	81.8	39.0	11.3	0.9
1975	35.3	112.7	131.2	64.4	21.6	4.8	0.4
1980	27.6	100.1	129.4	69.3	19.4	3.1	0.2
1985	23.7	85.3	125.3	74.6	21.8	3.0	0.1

Source: Statistics Canada. Births and Deaths, Vital Statistics, Vol. 1. Catalogue 84-204, various years.

TABLE 3-1

TOTAL INCOME, EXPENDITURE, SAVINGS AND TAXES BY DEMOGRAPHIC GROUP, COMPOSITE FILE

	Income Before Tax	Personal Taxes	Total Expenditures as Portion of Before Tax Income	Total Savings as Portion of Before Tax Income
AGE				
24 Years or less	19,185	2,631	.98	-.15
25-34	28,234	4,860	.82	-.04
35-44	34,890	6,636	.81	-.05
45-54	36,567	6,810	.77	+.00
55-64	28,838	4,974	.84	-.06
65 years or more	16,326	1,655	.83	+.04
COUNTRY OF BIRTH				
Canada	28,585	4,932	.83	-.03
U.S., North and West Europe	28,135	4,903	.79	+.01
South and East Europe	26,125	4,107	.81	-.00
Rest of World	30,451	5,129	.96	-.19
ARRIVAL IN CANADA				
Distant	24,056	3,641	.79	+.04
Mid	30,611	5,398	.86	-.08
Recent	24,840	3,646	.92	-.10
FAMILY STRUCTURE				
Single	19,769	3,284	.87	-.07
Married, no children	33,112	5,796	.75	+.04
Married, youngest child<5 years	30,689	5,367	.79	-.01
Married, youngest child>5 years	34,009	6,370	.77	-.00
Single Parent	17,765	1,846	1.01	-.12

TABLE 3-1 (cont'd)

TOTAL INCOME, EXPENDITURE, SAVINGS AND TAXES BY DEMOGRAPHIC GROUP, COMPOSITE FILE

	Income Before Tax	Personal Taxes	Total Expenditures as portion of Before Tax Income	Total Savings as portion of Before Tax Income
AGE				
FAMILY TYPE				
1 Adult	15,400	2,352	.97	-.16
1 Adult, 1 or 2 children	15,028	1,551	1.03	-.14
1 Adult, 3 or more children	14,725	777	1.06	-.11
2 Adults	28,089	4,723	.78	+.01
2 Adults, 1 or 2 children	32,293	5,948	.78	-.01
2 Adults, 3 or more children	32,413	5,698	.80	-.02
3 Adults	35,215	6,181	.74	+.05
3 Adults, 1 or more children	35,527	6,326	.79	-.01
4 Adults	47,542	8,404	.72	+.05
4 Adults, 1 or more children	42,238	7,165	.78	+.01
EMPLOYMENT STATUS				
No Spouse, Male Head	21,978	3,806	1.00	-.22
No Spouse, Female Head	16,245	2,034	.92	-.07
Spouse Present, Only Head Works	27,698	4,739	.80	-.00
Spouse Present, Both Work	38,667	7,085	.73	+.03

TABLE 3-2

BREAKDOWN OF INCOME BY OTHER CHARACTERISTICS, COMPOSITE FILE

	WAGE	SELF EMPLOYMENT	TRANFERS	INTEREST	MISC.
BREAKDOWN OF INCOME BY AGE					
24 or less	.757	.035	.159	.014	.034
25-34	.783	.050	.130	.017	.020
35-44	.783	.050	.130	.017	.020
45-54	.750	.059	.119	.050	.023
55-64	.598	.046	.181	.099	.076
65 or over	.083	.011	.587	.178	.142
BREAKDOWN OF INCOME BY COUNTRY OF BIRTH OF HEAD					
Canadian Born	.638	.041	.212	.059	.051
U.S., N.W. Europe	.566	.060	.210	.091	.073
S.E. Europe	.622	.060	.212	.085	.022
Rest of World	.722	.052	.162	.042	.021
BREAKDOWN OF INCOME BY YEAR OF ARRIVAL					
Distant	.186	.018	.505	.178	.114
Mid	.712	.066	.136	.056	.030
Recent	.697	.066	.168	.048	.021
INCOME BREAKDOWN BY FAMILY TYPE					
1 Adult	.476	.035	.326	.094	.069
2 Adults	.404	.030	.462	.022	.081
2 Adults, 1 Child	.390	.005	.461	.020	.124
2 Adults, 2 Children	.730	.073	.168	.018	.011
2 Adults, 3 Children	.833	.037	.076	.039	.015
3 Adults	.793	.064	.109	.023	.012
3 Adults, 1 Child	.708	.036	.138	.057	.061
3 Adults, 2* Children	.763	.070	.135	.017	.016
4 Adults	.757	.034	.162	.033	.014
INCOME BREAKDOWN BY EMPLOYMENT STATUS					
No Spouse Male Head	.606	.055	.224	.065	.050
No Spouse Female Head	.450	.014	.370	.087	.079
Spouse Present, Only Head Works	.554	.041	.248	.089	.069
Spouse Present, Both Work	.825	.064	.069	.028	.014

TABLE 3-3

PROPORTION SPENT OF TOTAL EXPENDITURES FOR CONSUMER ITEMS BY HEAD'S AGE, COMPOSITE FILE (C) AND WITHOUT 1978 (W)

	AGE OF HEAD											
	24 or less		25-34		35-44		45-54		55-64		65 +	
	C	W	C	W	C	W	C	W	C	W	C	W
Food	.184	.178	.198	.194	.220	.215	.227	.219	.234	.229	.257	.246
Shelter	.251	.260	.263	.267	.246	.251	.220	.229	.238	.246	.312	.318
Household Operation	.057	.057	.062	.063	.057	.058	.050	.050	.055	.055	.063	.065
Household Furnishings	.050	.046	.051	.047	.049	.046	.046	.042	.041	.038	.039	.038
Clothing	.083	.085	.079	.079	.087	.085	.090	.088	.076	.074	.060	.059
Transportation	.143	.140	.141	.140	.138	.138	.152	.154	.154	.156	.110	.113
Health Care	.020	.020	.022	.022	.024	.025	.028	.028	.030	.030	.030	.031
Personal Care	.026	.028	.024	.025	.024	.025	.026	.027	.025	.025	.025	.025
Recreation	.069	.068	.059	.058	.062	.062	.061	.060	.054	.053	.037	.035
Reading Materials	.008	.008	.009	.009	.008	.008	.008	.008	.009	.009	.010	.010
Education	.019	.019	.009	.009	.011	.011	.014	.014	.007	.007	.001	.001
Tobacco and Alcohol	.060	.061	.047	.050	.040	.040	.040	.040	.046	.047	.034	.034
Miscellaneous	.030	.030	.036	.037	.033	.035	.033	.036	.032	.033	.025	.025

TABLE 3-4

PROPORTION SPENT OF TOTAL EXPENDITURES FOR CONSUMER ITEMS BY HEAD'S COUNTRY OF BIRTH, IMMIGRANT ARRIVAL PERIOD, COMPOSITE FILE (C) AND WITHOUT 1978 (W)

	Place of Birth								Time of Arrival					
	Canadian Born		U.S., North & West Europe		South & East Europe		Rest of World		Recent		Mid		Distant	
	C	W	C	W	C	W	C	W	C	W	C	W	C	W
Food	.216	.210	.224	.218	.256	.249	.231	.230	.219	.227	.228	.222	.254	.243
Shelter	.253	.259	.279	.283	.250	.259	.263	.267	.250	.258	.255	.263	.287	.286
Household Operation	.057	.058	.059	.060	.056	.056	.060	.061	.057	.057	.058	.060	.059	.059
Household Furnishings	.046	.044	.045	.042	.048	.042	.048	.044	.058	.045	.049	.045	.040	.040
Clothing	.081	.079	.071	.069	.081	.079	.078	.078	.079	.087	.082	.080	.064	.065
Transportation	.141	.141	.131	.135	.134	.136	.149	.147	.155	.143	.145	.146	.117	.125
Health Care	.025	.025	.029	.030	.029	.030	.025	.026	.022	.022	.027	.027	.031	.032
Personal Care	.025	.026	.024	.025	.024	.024	.024	.025	.024	.026	.024	.025	.024	.024
Recreation	.059	.057	.055	.053	.043	.041	.048	.047	.061	.057	.050	.049	.047	.046
Reading Materials	.009	.009	.009	.009	.006	.006	.007	.007	.008	.007	.007	.007	.009	.009
Education	.009	.009	.009	.009	.008	.009	.015	.015	.016	.018	.012	.012	.006	.007
Tobacco and Alcohol	.048	.048	.037	.038	.038	.038	.021	.021	.027	.027	.033	.032	.035	.036
Miscellaneous	.033	.030	.028	.030	.028	.031	.031	.032	.026	.024	.030	.032	.028	.029

TABLE 3-5

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY PLACE OF BIRTH BY AGE
OF HEAD OF HOUSEHOLD, 1982, 1984

	Canadian Born				United States, North and West Europe				South and East of Europe				Rest of World			
	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+
Food	.177	.211	.228	.239	.187	.202	.220	.258	.183	.259	.243	.274	.198	.234	.250	.282
Shelter	.261	.246	.244	.310	.262	.272	.252	.338	.232	.250	.227	.340	.244	.278	.239	.340
Household Operation	.057	.057	.055	.065	.052	.059	.060	.063	.057	.057	.052	.066	.069	.064	.057	.055
Household Furnishings	.047	.047	.039	.038	.028	.044	.041	.036	.041	.041	.037	.043	.046	.048	.029	.035
Clothing	.084	.087	.075	.061	.086	.077	.068	.053	.088	.084	.074	.056	.101	.079	.068	.044
Transportation	.139	.139	.154	.121	.120	.138	.160	.099	.189	.132	.165	.084	.167	.137	.158	.097
Health Care	.019	.025	.029	.031	.022	.026	.033	.031	.017	.027	.033	.030	.028	.023	.027	.026
Personal Care	.028	.026	.026	.026	.028	.023	.024	.026	.027	.025	.023	.022	.027	.025	.025	.027
Recreation	.068	.065	.054	.036	.081	.069	.050	.036	.055	.040	.044	.031	.051	.047	.054	.021
Reading Materials	.008	.008	.009	.010	.005	.009	.010	.010	.006	.005	.006	.007	.007	.007	.008	.009
Education	.018	.011	.007	.001	.035	.010	.007	.008	.021	.009	.010	.009	.020	.011	.026	.000
Tobacco & Alcohol	.062	.043	.049	.036	.066	.037	.041	.030	.059	.036	.042	.029	.017	.017	.035	.023
Miscellaneous	.030	.036	.032	.027	.027	.035	.035	.019	.025	.034	.040	.019	.027	.032	.026	.041

TABLE 3-6

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY PLACE OF BIRTH
BY HIGHEST EDUCATION OF HEAD, 1982, 1984

	Canadian Born				United States, North and West Europe				South and East of Europe				Rest of World			
	Elem	Sec	Dipl	Univ	Elem	Sec	Dipl	Univ	Elem	Sec	Dipl	Univ	Elem	Sec	Dipl	Univ
Food	.254	.213	.193	.181	.253	.227	.203	.186	.274	.233	.217	.203	.270	.235	.225	.214
Shelter	.270	.255	.256	.261	.310	.288	.268	.259	.261	.259	.240	.263	.259	.265	.282	.267
Household Operation	.057	.058	.058	.061	.059	.058	.063	.066	.054	.056	.058	.066	.047	.060	.062	.068
Household Furnishings	.037	.043	.045	.053	.040	.039	.050	.045	.039	.044	.054	.054	.040	.037	.044	.056
Clothing	.068	.077	.085	.087	.056	.068	.072	.076	.079	.079	.086	.087	.070	.081	.081	.077
Transportation	.123	.145	.146	.148	.119	.125	.143	.158	.124	.148	.156	.134	.144	.156	.128	.142
Health Care	.026	.024	.026	.027	.033	.028	.033	.030	.031	.028	.031	.032	.023	.025	.029	.024
Personal Care	.026	.027	.026	.024	.025	.026	.025	.022	.024	.025	.026	.023	.026	.027	.027	.022
Recreation	.045	.058	.067	.060	.035	.055	.056	.060	.034	.044	.056	.049	.042	.041	.052	.053
Reading Materials	.008	.008	.010	.012	.008	.008	.010	.012	.005	.006	.008	.010	.005	.006	.007	.010
Education	.003	.005	.012	.019	.002	.007	.010	.019	.007	.007	.008	.017	.015	.011	.013	.019
Tobacco & Alcohol	.052	.052	.042	.033	.035	.043	.035	.032	.040	.040	.029	.023	.028	.025	.019	.015
Miscellaneous	.032	.034	.034	.034	.026	.029	.033	.036	.028	.031	.033	.040	.030	.032	.033	.034

TABLE 3-7

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY PLACE OF BIRTH BY
LOCATION OF HOUSEHOLD, 1982, 1984

	Canadian Born					U.S., North and West of Europe					South and East of Europe					Rest of World				
	AT[a]	PQ	ONT	PR[b]	BC	AT	PQ	ONT	PR	BC	AT	PQ	ONT	PR	BC	AT	PQ	ONT	PR	BC
Food	.219	.227	.206	.197	.206	.198	.210	.219	.223	.220	.230	.256	.251	.246	.229	.231	.240	.225	.224	.242
Shelter	.248	.251	.250	.268	.286	.279	.256	.270	.282	.308	.225	.266	.244	.276	.280	.238	.255	.274	.256	.290
Household Operation	.064	.053	.060	.057	.061	.076	.062	.061	.059	.056	.067	.052	.059	.054	.056	.066	.058	.070	.059	.048
Household Furnishings	.040	.041	.045	.047	.045	.045	.039	.040	.047	.039	.026	.037	.039	.051	.048	.058	.047	.045	.043	.035
Clothing	.077	.084	.080	.080	.066	.065	.078	.074	.068	.060	.082	.080	.081	.075	.077	.069	.088	.075	.085	.066
Transportation	.149	.139	.139	.136	.144	.148	.182	.134	.126	.129	.187	.135	.139	.131	.129	.162	.142	.143	.156	.140
Health Care	.023	.024	.029	.024	.028	.026	.029	.029	.028	.034	.025	.023	.031	.030	.032	.023	.023	.028	.023	.030
Personal Care	.027	.027	.026	.026	.024	.022	.022	.028	.025	.023	.025	.024	.026	.023	.022	.021	.029	.026	.024	.021
Recreation	.051	.052	.061	.069	.042	.047	.041	.054	.058	.052	.045	.038	.040	.042	.048	.038	.046	.042	.054	.052
Reading Materials	.008	.008	.009	.010	.010	.009	.009	.010	.007	.009	.010	.007	.006	.006	.005	.009	.008	.007	.006	.007
Education	.008	.008	.009	.010	.010	.009	.009	.010	.007	.009	.007	.009	.012	.004	.010	.034	.011	.013	.019	.013
Tobacco & Alcohol	.050	.049	.052	.045	.045	.035	.037	.041	.037	.035	.045	.038	.040	.036	.029	.022	.022	.022	.018	.024
Miscellaneous	.035	.034	.034	.033	.034	.038	.023	.032	.031	.027	.026	.035	.032	.026	.037	.028	.033	.030	.034	.032

Notes: AT[a] refers to the Atlantic Provinces.
PR[b] refers to the Prairie Provinces.

TABLE 3-8

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY TIME OF ARRIVAL BY AGE
OF HEAD OF HOUSEHOLD, 1982, 1984

	Canadian Born				Distant Arrival				Mid-Term Arrival				Recent Arrival			
	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+
Food	.177	.211	.228	.239	-	.222	.230	.268	.183	.230	.238	.246	.213	.213	.250	.295
Shelter	.261	.246	.244	.310	-	.255	.234	.336	.254	.271	.251	.353	.233	.270	.309	.424
Household Operation	.057	.057	.055	.065	-	.056	.054	.065	.058	.061	.061	.056	.065	.058	.028	.079
Household Furnishings	.047	.047	.039	.038	-	.044	.038	.037	.042	.044	.039	.049	.033	.058	.028	.079
Clothing	.084	.087	.075	.061	-	.085	.070	.053	.088	.078	.072	.058	.108	.085	.069	.032
Transportation	.139	.139	.154	.121	-	.128	.167	.093	.160	.137	.154	.092	.135	.151	.119	.044
Health Care	.019	.025	.029	.031	-	.029	.034	.031	.021	.024	.029	.025	.030	.016	.044	.019
Personal Care	.028	.026	.026	.026	-	.024	.024	.024	.027	.024	.023	.026	.029	.024	.039	.020
Recreation	.068	.065	.054	.036	-	.065	.053	.035	.057	.052	.041	.027	.073	.056	.050	.005
Reading Materials	.008	.008	.009	.010	-	.008	.008	.009	.007	.007	.009	.007	.004	.007	.007	.011
Education	.018	.011	.007	.001	-	.012	.008	.001	.028	.010	.015	.001	.022	.014	.010	.000
Tobacco & Alcohol	.062	.043	.049	.036	-	.032	.046	.029	.048	.029	.034	.031	.032	.022	.021	.000
Miscellaneous	.030	.036	.032	.027	-	.041	.036	.019	.028	.032	.035	.027	.022	.024	.009	.001

TABLE 3-9

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY TIME OF ARRIVAL
BY HIGHEST EDUCATION OF HEAD, 1982, 1984

	Canadian Born				Distant Arrival				Mid-Term Arrival				Recent Arrival			
	Elem	Sec	Dipl	Univ	Elem	Sec	Dipl	Univ	Elem	Sec	Dipl	Univ	Elem	Sec	Dipl	Univ
Food	.253	.213	.193	.181	.269	.243	.216	.191	.264	.221	.211	.202	.285	.232	.217	.204
Shelter	.270	.255	.256	.261	.310	.288	.268	.259	.261	.259	.240	.263	.259	.265	.282	.267
Household Operation	.057	.058	.058	.061	.058	.057	.066	.064	.052	.059	.061	.068	.042	.053	.054	.062
Household Furnishings	.037	.043	.046	.053	.037	.041	.046	.043	.041	.041	.049	.053	.047	.038	.054	.053
Clothing	.068	.077	.085	.087	.060	.063	.072	.079	.085	.080	.079	.076	.071	.094	.084	.084
Transportation	.123	.145	.146	.149	.113	.122	.143	.148	.141	.151	.135	.148	.136	.142	.173	.147
Health Care	.026	.024	.026	.027	.034	.030	.036	.032	.026	.025	.030	.027	.024	.021	.021	.020
Personal Care	.026	.027	.026	.024	.024	.025	.028	.023	.026	.026	.025	.022	.024	.031	.025	.019
Recreation	.045	.058	.067	.060	.033	.051	.055	.060	.038	.045	.057	.055	.045	.064	.055	.054
Reading Materials	.008	.008	.010	.012	.007	.009	.009	.012	.004	.006	.009	.011	.006	.005	.007	.009
Education	.003	.006	.011	.019	.005	.006	.010	.015	.009	.010	.010	.019	.006	.005	.016	.027
Tobacco & Alcohol	.052	.053	.042	.033	.038	.039	.025	.030	.038	.037	.032	.021	.021	.030	.027	.020
Miscellaneous	.032	.034	.034	.034	.027	.027	.028	.035	.029	.033	.036	.035	.020	.017	.027	.038

TABLE 3-10

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY TIME OF ARRIVAL BY AGE
OF HEAD OF HOUSEHOLD, 1982, 1984

	Canadian Born				Distant Arrival				Mid-Term Arrival				Recent Arrival							
	<24	35-44	55-64	65+	<24	35-44	55-64	65+	<24	35-44	55-64	65+	<24	35-44	55-64	65+	<24	35-44	55-64	65+
Food	.218	.227	.206	.197	.206	.232	.237	.241	.253	.239	.191	.243	.227	.211	.217	.181	.226	.230	.232	.223
Shelter	.248	.252	.251	.268	.286	.289	.274	.265	.295	.315	.250	.259	.261	.255	.286	.293	.215	.240	.269	.301
Household Operation	.064	.053	.060	.057	.061	.073	.057	.061	.056	.057	.073	.056	.063	.059	.053	.080	.057	.062	.055	.047
Household Furnishings	.040	.041	.045	.047	.045	.030	.038	.038	.044	.040	.059	.039	.044	.050	.041	.050	.077	.029	.049	.031
Clothing	.077	.084	.080	.080	.067	.066	.080	.066	.064	.056	.070	.081	.084	.081	.070	.054	.120	.081	.089	.072
Transportation	.150	.139	.140	.137	.145	.126	.145	.131	.117	.114	.178	.149	.141	.151	.141	.136	.133	.148	.136	.167
Health Care	.023	.024	.029	.024	.028	.026	.025	.033	.032	.036	.025	.025	.028	.024	.029	.024	.016	.024	.020	.034
Personal Care	.027	.027	.026	.026	.024	.024	.023	.026	.023	.023	.021	.026	.027	.024	.021	.019	.030	.025	.027	.025
Recreation	.051	.052	.061	.069	.042	.045	.037	.049	.046	.047	.042	.041	.044	.057	.056	.052	.054	.061	.058	.051
Reading Materials	.008	.010	.009	.009	.009	.010	.008	.009	.009	.009	.011	.008	.007	.007	.007	.009	.012	.007	.006	.006
Education	.008	.008	.009	.010	.009	.003	.010	.009	.006	.005	.018	.009	.011	.013	.015	.053	.017	.030	.009	.007
Tobacco & Alcohol	.050	.049	.052	.045	.046	.038	.036	.041	.032	.031	.026	.031	.033	.032	.032	.037	.025	.038	.021	.018
Miscellaneous	.035	.034	.034	.033	.034	.039	.030	.034	.023	.028	.035	.034	.029	.037	.033	.013	.019	.025	.029	.019

TABLE 3-11

PROPORTION SPENT OF TOTAL EXPENDITURES FOR CONSUMER ITEMS BY SPOUSE PRESENT AND SPOUSE'S WORK INCOME, COMPOSITE FILE (C) AND WITHOUT 1978 (W)

	No Spouse				Spouse Present			
	Male		Female		Income=0		Income>0	
	C	W	C	W	C	W	C	W
Food	.216	.209	.221	.213	.243	.238	.204	.200
Shelter	.265	.270	.315	.322	.242	.248	.227	.232
Household Operation	.047	.047	.068	.069	.053	.054	.058	.059
Household Furnishings	.034	.033	.041	.039	.046	.044	.054	.050
Clothing	.055	.057	.081	.080	.076	.073	.089	.088
Transportation	.141	.140	.095	.096	.150	.153	.159	.159
Health Care	.021	.022	.027	.027	.027	.028	.025	.025
Personal Care	.016	.016	.029	.030	.024	.026	.025	.026
Recreation	.067	.066	.047	.046	.052	.050	.063	.062
Reading Materials	.010	.010	.010	.010	.008	.008	.008	.008
Education	.008	.008	.009	.009	.008	.008	.011	.011
Tobacco and Alcohol	.077	.079	.033	.034	.042	.042	.043	.043
Miscellaneous	.043	.043	.026	.027	.028	.029	.035	.037

TABLE 3-12

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY SPOUSE PRESENT AND
SPOUSE'S WORK INCOME BY AGE OF HOUSEHOLD HEAD, 1982, 1984

	No Spouse								Spouse Present							
	Male				Female				Income = 0				Income > 0			
	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+	≤24	35-44	55-64	65+
Food	.180	.190	.235	.254	.172	.188	.227	.240	.204	.219	.240	.252	.176	.189	.214	.227
Shelter	.235	.265	.264	.303	.306	.291	.304	.383	.269	.279	.224	.269	.231	.256	.209	.224
Household Operation	.043	.044	.049	.056	.071	.073	.065	.074	.052	.056	.052	.058	.055	.067	.053	.060
Household Furnishings	.039	.038	.027	.023	.043	.042	.037	.034	.050	.050	.039	.045	.053	.052	.045	.052
Clothing	.069	.061	.048	.037	.097	.092	.074	.060	.067	.070	.071	.062	.087	.082	.088	.076
Transportation	.154	.140	.150	.120	.098	.114	.108	.063	.145	.129	.176	.156	.172	.154	.172	.164
Health Care	.016	.018	.027	.027	.022	.025	.030	.031	.019	.023	.030	.032	.020	.022	.030	.038
Personal Care	.019	.017	.015	.015	.037	.031	.028	.028	.030	.028	.024	.025	.026	.026	.028	.027
Recreation	.092	.081	.044	.037	.050	.050	.047	.036	.056	.055	.051	.030	.072	.054	.064	.062
Reading Materials	.008	.011	.010	.010	.008	.010	.010	.011	.008	.008	.009	.009	.007	.008	.008	.010
Education	.023	.010	.005	.001	.026	.013	.005	.001	.010	.008	.007	.002	.012	.008	.011	.004
Tobacco & Alcohol	.089	.083	.080	.067	.048	.041	.036	.019	.061	.042	.049	.039	.055	.045	.043	.034
Miscellaneous	.034	.041	.046	.049	.023	.029	.030	.023	.029	.035	.030	.021	.035	.038	.035	.023

TABLE 3-13

PROPORTION SPENT OF TOTAL EXPENDITURES FOR CONSUMER ITEMS BY FAMILY COMPOSITION, COMPOSITE FILE (C) AND WITHOUT 1978 (W)

	Unattached Individuals		Married Couple									
			Couple Only		Youngest Under 4 or 5		Youngest 4-15 or 5-15		Youngest Child Over 15[a]	Single Parent Family		Other	
	C	W	C	W	C	W	C	W	W	C	W	C	W
Food	.198	.209	.218	.210	.212	.206	.232	.227	.220	.240	.229	.231	.218
Shelter	.279	.324	.229	.253	.263	.269	.225	.227	.191	.290	.279	.288	.257
Household Operation	.051	.059	.051	.054	.071	.073	.057	.055	.047	.082	.074	.059	.057
Household Furnishings	.039	.035	.050	.050	.055	.050	.051	.046	.042	.041	.039	.039	.040
Clothing	.075	.066	.081	.075	.075	.072	.092	.092	.091	.082	.083	.074	.080
Transportation	.129	.106	.167	.162	.141	.141	.142	.141	.187	.090	.106	.113	.131
Health Care	.024	.026	.028	.028	.023	.023	.025	.026	.027	.018	.021	.027	.029
Personal Care	.023	.024	.025	.024	.026	.028	.023	.026	.027	.028	.029	.026	.027
Recreation	.065	.053	.057	.053	.049	.049	.066	.067	.061	.047	.050	.052	.046
Reading Materials	.011	.011	.009	.009	.007	.007	.007	.007	.008	.007	.008	.009	.009
Education	.013	.007	.009	.004	.006	.007	.013	.015	.019	.010	.013	.008	.007
Tobacco and Alcohol	.060	.051	.047	.046	.038	.038	.037	.037	.048	.039	.040	.041	.049
Miscellaneous	.032	.030	.031	.032	.035	.036	.030	.034	.032	.026	.028	.034	.050

Notes: [a] This category was not existent in 1978 and consequently is not found on the composite file.

TABLE 3-14

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY
FAMILY CLASS, COMPOSITE FILE

Number of Adults	1	1	1	2	2	2	3	3	4+	4+
Number of Children	0	1 or 2	3+	0	1 or 2	3+	0	1+	0	1+
Food	.215	.225	.283	.214	.213	.239	.226	.242	.225	.252
Shelter	.318	.215	.322	.249	.253	.248	.207	.210	.175	.189
Household Operation	.058	.095	.071	.053	.066	.061	.050	.052	.044	.047
Household Furnishings	.037	.042	.034	.051	.053	.050	.043	.048	.043	.042
Clothing	.066	.076	.078	.075	.081	.081	.087	.098	.101	.105
Transportation	.105	.081	.062	.155	.141	.126	.171	.145	.187	.153
Health Care	.025	.017	.011	.028	.024	.025	.027	.027	.026	.025
Personal Care	.024	.028	.025	.024	.025	.023	.026	.027	.027	.028
Recreation	.054	.044	.048	.054	.056	.063	.060	.064	.065	.064
Reading Materials	.011	.007	.005	.009	.009	.007	.009	.007	.007	.006
Education	.007	.009	.014	.006	.008	.011	.013	.014	.023	.020
Tobacco & Alcohol	.050	.036	.028	.047	.039	.033	.049	.039	.047	.039
Miscellaneous	.030	.025	.020	.034	.034	.031	.033	.030	.030	.030

TABLE 3-15

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY
FAMILY CLASS, 1982, 1984

Number of Adults	1	1	1	2	2	2	3	3	4+	4+
Number of Children	0	1 or 2	3+	0	1 or 2	3+	0	1+	0	1+
Food	.209	.221	.255	.208	.208	.236	.219	.234	.222	.246
Shelter	.324	.318	.328	.254	.257	.251	.209	.222	.181	.192
Household Operation	.059	.095	.071	.054	.068	.062	.051	.054	.044	.049
Household Furnishings	.035	.039	.038	.048	.049	.050	.040	.043	.040	.038
Clothing	.066	.078	.079	.076	.079	.078	.085	.096	.097	.102
Transportation	.106	.081	.070	.158	.140	.125	.174	.140	.188	.157
Health Care	.026	.017	.012	.028	.024	.025	.028	.026	.027	.025
Personal Care	.024	.029	.025	.025	.027	.025	.027	.029	.028	.030
Recreation	.053	.043	.051	.052	.055	.065	.060	.061	.062	.063
Reading Materials	.011	.007	.005	.009	.007	.007	.008	.007	.007	.006
Education	.007	.009	.017	.005	.009	.011	.014	.015	.025	.020
Tobacco & Alcohol	.051	.037	.026	.047	.040	.032	.050	.041	.048	.040
Miscellaneous	.030	.026	.024	.035	.036	.033	.035	.033	.032	.034

TABLE 3-16

PROPORTION SPENT OUT OF TOTAL EXPENDITURES FOR SOME CONSUMER ITEMS BY FAMILY CLASS AGE OF HOUSEHOLD HEAD, 1982, 1984

	Food	Shelter	Transport-ation	Education	Tobacco and Alcohol
One adult, no children					
≤24	.172	.279	.115	.029	.065
25-34	.179	.282	.136	.012	.065
55-64	.226	.322	.108	.001	.048
≥65	.246	.386	.066	.000	.028
One adult, one or two children					
≤24	.209	.389	.047	.007	.040
25-34	.218	.304	.077	.009	.040
55-64	.230	.356	.067	.021	.019
≥65	-	-	-	-	-
One adult, three or more children					
≤24	.221	.499	.007	.000	.026
25-34	.252	.328	.073	.021	.023
55-64	-	-	-	-	-
≥65	-	-	-	-	-
Two adults, no children					
≤24	.169	.233	.176	.015	.058
25-34	.175	.247	.162	.010	.054
55-64	.226	.247	.159	.002	.047
≥65	.246	.278	.144	.001	.036
Two adults, one or two children					
≤24	.196	.248	.145	.004	.063
25-34	.202	.268	.141	.007	.042
55-64	.242	.244	.147	.011	.042
≥65	.281	.292	.135	.001	.042
Two adults, three or more children					
≤24	.237	.277	.103	.001	.043
25-34	.223	.271	.123	.009	.037
55-64	.226	.341	.093	.003	.055
≥65	.295	.299	.070	.015	.018

TABLE 3-16 (Cont'd)

PROPORTION SPENT OUT OF TOTAL EXPENDITURES
FOR SOME CONSUMER ITEMS BY FAMILY CLASS
AGE OF HOUSEHOLD HEAD, 1982, 1984

	Food	Shelter	Transport-ation	Education	Tobacco and Alcohol
Three adults, no children					
≤24	.171	.224	.157	.030	.082
25-34	.191	.234	.158	.015	.066
55-64	.229	.196	.189	.014	.044
≥65	.240	.216	.180	.006	.044
Three adults, one or more children					
≤24	.197	.180	.116	.017	.074
25-34	.221	.255	.134	.005	.057
55-64	.247	.208	.145	.010	.061
≥65	.294	.170	.155	.005	.076
Four adults, no children					
≤24	.213	.228	.149	.073	.054
25-34	.211	.225	.217	.035	.041
55-64	.237	.175	.187	.025	.047
≥65	.259	.198	.183	.013	.067
Four adults, one or more children					
≤24	.217	.225	.184	.002	.036
25-34	.231	.244	.147	.007	.025
55-64	.247	.168	.166	.009	.054
≥65	.291	.122	.123	.004	.083

TABLE 3-17

PROPORTION SPENT OF TOTAL EXPENDITURES
FOR CONSUMER ITEMS BY TOTAL EXPENDITURES AND AGE
OF HEAD OF HOUSEHOLD, 1982, 1984

	Under $15,000				$15,001 to $25,000				$25,001 to $40,000				Over $40,000			
	≤24	25-34	55-64	65+	≤24	25-34	55-64	65+	≤24	25-34	55-64	65+	≤24	25-34	55-64	65+
Food	.199	.243	.270	.270	.180	.202	.239	.211	.163	.188	.215	.210	.143	.166	.192	.178
Shelter	.324	.333	.322	.354	.252	.272	.255	.278	.217	.257	.216	.235	.191	.242	.182	.213
Household Operation	.069	.066	.065	.068	.054	.062	.056	.059	.049	.061	.052	.063	.050	.064	.050	.054
Household Furnishings	.034	.033	.031	.034	.047	.042	.037	.043	.057	.050	.041	.050	.056	.058	.047	.049
Clothing	.083	.068	.057	.052	.084	.074	.067	.066	.084	.080	.079	.076	.098	.088	.093	.081
Transportation	.068	.085	.080	.073	.147	.126	.146	.153	.192	.149	.188	.225	.218	.173	.208	.197
Health Care	.020	.019	.032	.030	.021	.025	.032	.034	.019	.023	.028	.031	.017	.020	.026	.027
Personal Care	.034	.030	.024	.025	.028	.026	.026	.027	.025	.025	.026	.025	.022	.023	.025	.021
Recreation	.051	.013	.035	.030	.073	.060	.047	.058	.077	.065	.055	.001	.083	.069	.076	.079
Reading Materials	.009	.010	.010	.010	.008	.010	.009	.009	.007	.008	.009	.010	.006	.008	.009	.010
Education	.032	.018	.002	.000	.015	.010	.004	.001	.012	.008	.009	.004	.006	.006	.016	.005
Tobacco & Alcohol	.057	.064	.050	.032	.061	.055	.050	.034	.063	.045	.047	.039	.066	.042	.040	.041
Miscellaneous	.021	.019	.024	.021	.030	.036	.032	.028	.035	.041	.037	.031	.044	.041	.038	.046

TABLE 4-1

REGRESSIONS ON THE MICRO OR SURVEY DATA FOR PROPORTION ALLOCATED TO EXPENDITURE GROUPS
(Coefficients and t-ratios)

	Food	Shelter	House-hold Operations	Furni-shings	Clothing	Transport	Health Care	Personal Care	Recrea-tion	Reading Materials	Educa-tion	Tobacco Alcohol	Misc.
Education													
Less than 9 years	.0054 (2.31)	.0080 (2.49)	-.0027 (2.77)	.0016 (1.27)	-.0005 (0.37)	-.0003 (0.09)	-.0008 (0.98)	-.0018 (3.94)	.0029 (0.97)	-.0012 (4.60)	-.0017 (3.88)	.0038 (2.61)	.0034 (2.45)
Some Post-Secondary Education	-.0016 (0.51)	.0115 (2.77)	.0038 (2.96)	-.0004 (0.26)	.0052 (3.81)	-.0173 (3.62)	.0032 (4.04)	.0005 (0.59)	-.0081 (0.74)	.0019 (7.24)	.0114 (11.61)	-.0078 (5.71)	-.0023 (1.49)
Post-Secondary Complete	.0003 (0.14)	.0089 (2.85)	.0030 (2.95)	.0002 (0.12)	.0034 (2.54)	-.0133 (3.99)	.0038 (5.30)	.000008 (0.02)	-.0007 (0.18)	.0021 (8.31)	.0066 (9.63)	-.0110 (8.70)	-.0032 (2.46)
University Degree	.0043 (1.60)	.0324 (8.37)	.0089 (5.86)	.0026 (1.71)	.0007 (0.47)	-.0295 (6.80)	.0045 (5.70)	-.0009 (1.36)	-.0170 (1.58)	.0049 (16.5)	.0151 (16.62)	-.0188 (16.6)	-.0072 (5.44)
Not Stated	.C160 (0.75)	-.189 (0.69)	.0183 (1.64)	-.0046 (0.56)	.0052 (0.37)	-.354 (1.49)	.0074 (0.72)	-.0034 (1.15)	.0172 (1.54)	.0024 (0.92)	.0007 (0.20)	-.0116 (1.25)	.0068 (0.76)
Geographic Location													
Atlantic	.0046 *(2.02)*	-.0117 *(3.52)*	.0015 *(1.35)*	-.0009 *(0.67)*	-.0001 *(0.09)*	.0219 *(6.22)*	-.0058 *(7.42)*	-.0009 *(1.78)*	-.0024 *(0.65)*	-.0003 *(1.33)*	-.0013 *(1.74)*	-.0006 *(0.39)*	.0053 *(3.94)*
Quebec	.0053 (1.99)	.0060 (1.59)	-.0047 (3.71)	-.0030 (1.79)	.0071 (3.98)	.0039 (0.95)	-.0049 (5.11)	.0003 (0.44)	-.0036 (1.70)	.0017 (4.99)	.0002 (0.27)	-.0069 (3.94)	-.0016 (1.08)

Table 4-1 (cont'd)

REGRESSIONS ON THE MICRO OR SURVEY DATA FOR PROPORTION ALLOCATED TO EXPENDITURE GROUPS
(Coefficients and t-ratios)

	Food	Shelter	Household Operations	Furnishings	Clothing	Transport	Health Care	Personal Care	Recreation	Reading Materials	Education	Tobacco Alcohol	Misc
Prairies	-.0076 (4.24)	.0080 (2.96)	-.0047 (5.28)	-.0033 (2.78)	.0012 (1.05)	.0023 (0.76)	-.0038 (5.58)	-.0007 (1.86)	.0083 (5.13)	-.0004 (1.72)	.0004 (0.58)	-.0064 (5.49)	.0002 (0.14)
British Columbia	-.0024 (0.75)	.0195 (4.35)	-.0036 (2.27)	.0011 (0.71)	-.0087 (5.60)	.0092 (2.02)	.0002 (0.20)	-.0028 (3.88)	-.0090 (0.80)	-.0005 (1.59)	.0013 (1.62)	-.0057 (3.66)	.0013 0.83)
Mother Tongue													
French	.0024 (0.92)	-.01481 (3.94)	-.0036 (2.91)	.0034 (2.02)	.0014 (0.82)	.0049 (1.19)	.00007 (0.07)	-.0007 (1.20)	.0007 (0.22)	-.00006 (0.18)	-.0009 (1.22)	.0033 (1.90)	.0040 (2.88)
Other	.0060 (2.37)	-.0100 (2.71)	-.0028 (2.44)	.0050 (2.97)	.0040 (2.66)	.0017 (0.46)	.0005 (0.53)	-.0018 (3.64)	.0014 (0.50)	-.0008 (2.92)	-.0006 (0.66)	-.0051 (3.59)	.0026 (1.49)
Age													
≤24	-.0375 (12.31)	-.0243 (5.22)	.0031 (2.11)	.0044 (2.21)	.0053 (2.71)	.0021 (3.20)	-.0061 (6.29)	.0021 (2.97)	.0149 (2.52)	-.0024 (6.27)	.0108 (7.53)	.0102 (4.48)	-.0012 (0.65)
25-34	-.0166 (8.74)	-.0011 (0.37)	.0045 (4.55)	.0023 (1.78)	-.0023 (1.86)	.0091 (3.03)	-.0029 (4.40)	.0005 (1.33)	-.0015 (0.53)	-.0007 (3.08)	.0009 (1.65)	.0059 (4.65)	.0021 (1.75)
45-54	.0059 (2.61)	-.0053 (1.60)	.0017 (1.74)	-.0008 (0.53)	-.0002 (0.13)	.0033 (0.92)	.0036 (4.42)	.0014 (3.03)	-.0053 (1.99)	.0001 (0.41)	.0020 (2.70)	-.0048 (3.26)	-.0016 (1.13)

Table 4-1 (cont'd)

REGRESSIONS ON THE MICRO OR SURVEY DATA FOR PROPORTION ALLOCATED TO EXPENDITURE GROUPS
(Coefficients and t-ratios)

	Food	Shelter	House-hold Operations	Furni-shings	Clothing	Trans-port	Health Care	Personal Care	Recrea-tion	Reading Materials	Educa-tion	Tobacco Alcohol	Misc.
55-64	.0072	-.0114	.0093	-.0018	-.0055	.0186	.0045	.0007	-.0051	.0002	-.0026	-.0108	-.0033
	(2.78)	(3.07)	(7.72)	(1.12)	(3.25)	(4.46)	(4.75)	(1.44)	(1.64)	(0.65)	(3.63)	(6.12)	(2.18)
≥65	-.0009	.0131	.0154	.0044	-.0080	.0169	.0052	.0003	-.0070	.0004	.-0066	-.0272	-.0063
	(0.25)	(2.62)	(8.52)	(2.28)	(4.11)	(3.11)	(4.50)	(0.37)	(0.66)	(1.12)	(8.96)	(13.84)	(3.24)
Birthplace													
U.S., North or West	.-0077	.0035	-.0002	-.0037	-.0040	.0047	.0006	.0008	.0076	.0011	.0002	.0024	-.0054
Europe	(1.94)	(0.59)	(0.08)	(1.51)	(1.78)	(0.81)	(0.39)	(1.00)	(1.63)	(2.54)	(0.13)	(1.03)	(2.15)
South or East	-.0041	-.0011	.0007	-.0035	.0014	.0043	.0007	.0007	-.0056	-.0006	.0019	.0027	-.0056
Europe	(0.80)	(0.16)	(0.36)	(1.21)	(0.52)	(0.65)	(0.42)	(0.82)	(1.01)	(1.44)	(1.23)	(1.01)	(1.94)
Other	.0029	.0049	.0025	-.0073	-.0056	.0140	-.0014	.0003	.0034	-.00004	-.0002	-.0106	-.0029
	(0.59)	(0.67)	(0.97)	(2.62)	(1.78)	(2.01)	(0.93)	(0.32)	(0.87)	(0.08)	(0.01)	(5.02)	(1.07)
Arrival Year													
Recent	.0067	-.0009	.0003	.0021	.0078	.0069	-.0025	.00008	.0001	-.0014	.0033	-.0169	-.0057
	(0.97)	(0.08)	(0.09)	(0.50)	(1.36)	(0.75)	(1.09)	(0.05)	(0.02)	(2.12)	(0.80)	(5.53)	(1.46)
Mid	.0052	.0152	.0020	.0008	-.0031	.0026	-.0004	-.0009	-.0120	-.0011	-.0001	-.0096	.0014
	(1.64)	(3.32)	(1.40)	(0.41)	(1.61)	(0.56)	(0.33)	(1.37)	(2.43)	(3.14)	(0.13)	(5.78)	(0.68)

Table 4-1 (cont'd)

REGRESSIONS ON THE MICRO OR SURVEY DATA FOR PROPORTION ALLOCATED TO EXPENDITURE GROUPS
(Coefficients and t-ratios)

	Food	Shelter	House-hold Operations	Furni-shings	Clothing	Trans-port	Health Care	Personal Care	Recrea-tion	Reading Materials	Educa-tion	Tobacco Alcohol	Misc.
Before 1946	.0089	.0073	.0001	.00007	-.0036	-.0074	.0018	-.0006	-.0026	-.0007	.0011	-.0064	.0021
	(2.31)	(1.33)	(0.06)	(0.03)	(1.72)	(1.43)	(1.18)	(0.82)	(0.46)	(1.97)	(1.07)	(2.74)	(0.86)
Divorced, Separated, Widowed	-.0036	.0121	.0051	-.0033	-.0050	-.0139	-.0033	-.0020	.0023	-.0011	.0001	.0022	.0105
	(1.49)	(3.45)	(4.32)	(2.49)	(3.46)	(3.89)	(3.49)	(4.15)	(0.69)	(3.87)	(0.15)	(1.34)	(5.97)
Household Size	.0146	-.00003	-.0004	-.0023	.0009	-.0036	.0003	.0002	-.0021	-.0005	.0029	-.0037	-.0061
	(10.29)	(0.02)	(0.66)	(2.43)	(1.04)	(1.89)	(0.59)	(0.60)	(1.57)	(4.24)	(5.01)	(4.42)	(6.96)
Female Head	-.0119	.0186	.0095	.0040	.0190	-.0165	.0032	.0072	-.0101	.0002	.0017	-.0188	-.0060
	(5.78)	(6.56)	(9.84)	(3.57)	(15.97)	(5.48)	(4.66)	(16.11)	(2.23)	(0.72)	(2.84)	(13.51)	(5.00)
Family Composi-tion	-.0229	.0215	-.0016	-.0063	-.0010	-.0043	-.0038	-.0046	.0232	.0006	.0006	.0015	-.0028
One Adult, No Children	(6.64)	(4.74)	(1.09)	(3.40)	(0.57)	(0.91)	(3.82)	(5.65)	(2.26)	(1.79)	(0.65)	(0.77)	(1.35)
One Adult, 1 or 2 Children	-.0093	.0216	.0368	-.0010	-.00002	-.246	-.0089	-.0009	.0101	-.0018	-.0034	-.0138	-.0048
	(1.94)	(3.09)	(10.79)	(0.39)	(0.01)	(4.17)	(7.30)	(0.79)	(1.18)	(3.62)	(2.46)	(5.50)	(1.61)

Table 4-1 (cont'd)

REGRESSIONS ON THE MICRO OR SURVEY DATA FOR PROPORTION ALLOCATED TO EXPENDITURE GROUPS
(Coefficients and t-ratios)

	Food	Shelter	House-hold Operations	Furni-shings	Clothing	Trans-port	Health Care	Personal Care	Recrea-tion	Reading Materials	Educa-tion	Tobacco Alcohol	Misc.
One Adult,													
3 or more	.0055	.0300	.0128	.0006	-.0013	-.0287	-.0131	-.0052	.0188	-.0021	.0013	-.0190	.0003
Children	(0.54)	(1.64)	(2.02)	(0.10)	(0.22)	(2.33)	(6.02)	(2.82)	(1.98)	(2.58)	(0.30)	(3.66)	(0.04)
Two Adults,													
1 or 2	.0002	.0186	.0206	.0010	-.0046	-.0232	-.0016	.0032	-.0045	-.0009	-.0027	-.0101	.0040
Children	(0.06)	(4.11)	(14.28)	(0.50)	(2.48)	(5.13)	(1.73)	(4.28)	(0.56)	(2.86)	(2.54)	(5.59)	(2.26)
Two Adults,													
3 or more	-.0006	.0156	.0176	.0058	-.0053	-.0354	-.0007	.0021	.0069	-.0009	-.0038	-.0125	.0107
Children	(0.01)	(2.03)	(7.16)	(1.60)	(1.65)	(4.85)	(0.44)	(1.82)	(0.94)	(1.93)	(1.95)	(4.10)	(3.42)
Three Adults,													
No Children	.0084	-.0231	.0008	-.0074	.0038	.0005	-.0011	.0028	.0002	-.0001	.0085	.0062	.0006
	(2.63)	(5.45)	(0.66)	(4.00)	(1.83)	(0.96)	(0.97)	(3.99)	(0.03)	(0.40)	(7.46)	(3.19)	(0.31)
Three Adults,													
1 or more													
Children	.0082	-.0071	.0084	-.0036	.0094	-.0276	-.0007	.0057	.0001	-.0005	.0035	-.0013	.0055
	(1.72)	(1.02)	(3.99)	(1.25)	(3.13)	(4.04)	(0.45)	(5.27)	(0.02)	(1.20)	(1.97)	(0.40)	(2.91)
Four Adults,													
No Children	.0105	-.0290	-.0018	-.0087	.0086	-.0023	-.0022	.0052	-.0070	-.0002	.0159	.0100	.0011
	(2.13)	(4.45)	(0.89)	(3.03)	(2.84)	(0.33)	(1.48)	(4.56)	(0.58)	(0.44)	(9.01)	(3.30)	(0.42)
Four Adults,													
1 or more	.0123	-.0240	.0052	-.0084	.0130	-.0213	-.0025	.0071	-.0016	-.0005	.0056	.0040	.0109
Children	(1.89)	(2.65)	(1.91)	(2.00)	(3.19)	(2.38)	(1.29)	(4.95)	(0.13)	(0.91)	(2.15)	(1.10)	(2.78)

Table 4-1 (cont'd)

REGRESSIONS ON THE MICRO OR SURVEY DATA FOR PROPORTION ALLOCATED TO EXPENDITURE GROUPS
(Coefficients and t-ratios)

	Food	Shelter	House-hold Operations	Furni-shings	Clothing	Trans-port	Health Care	Personal Care	Recrea-tion	Reading Materials	Educa-tion	Tobacco Alcohol	Misc.
Spouse Working	.-0008	.0080	.0077	.0022	.0058	-.0119	-.0003	.0011	-.0057	-.00003	.00006	-.0055	-.0005
	(0.38)	(2.84)	(9.01)	(2.01)	(5.18)	(4.20)	(0.51)	(2.04)	(0.83)	(0.48)	(0.10)	(5.44)	(0.49)
Total Expendi-ture	-.0750	-.0630	-.0067	.0145	.0167	.0723	-.0023	-.0042	.0414	-.0015	-.0048	-.0034	.0159
	(17.49)	(12.55)	(4.42)	(11.02)	(11.28)	(15.96)	(3.62)	(3.69)	(2.39)	(5.85)	(6.2)	(2.83)	(11.79)
Survey Date	-.0001	.0005	.0016	-.0061	-.0041	.0173	-.0017	-.0020	.0032	-.0002	-.0008	-.0106	.0032
1982	(0.02)	(0.07)	(0.64)	(2.29)	(1.35)	(2.63)	(1.25)	(2.10)	(0.60)	(0.48)	(0.44)	(5.61)	(1.23)
R^2	.271	.209	.109	.049	.122	.122	.037	.063	.017	.078	.129	.106	.044
F	119.2	85.2	39.8	17.2	45.1	45.2	13.3	22.33	6.5	27.9	48.0	38.7	15.7

TABLE 5-1

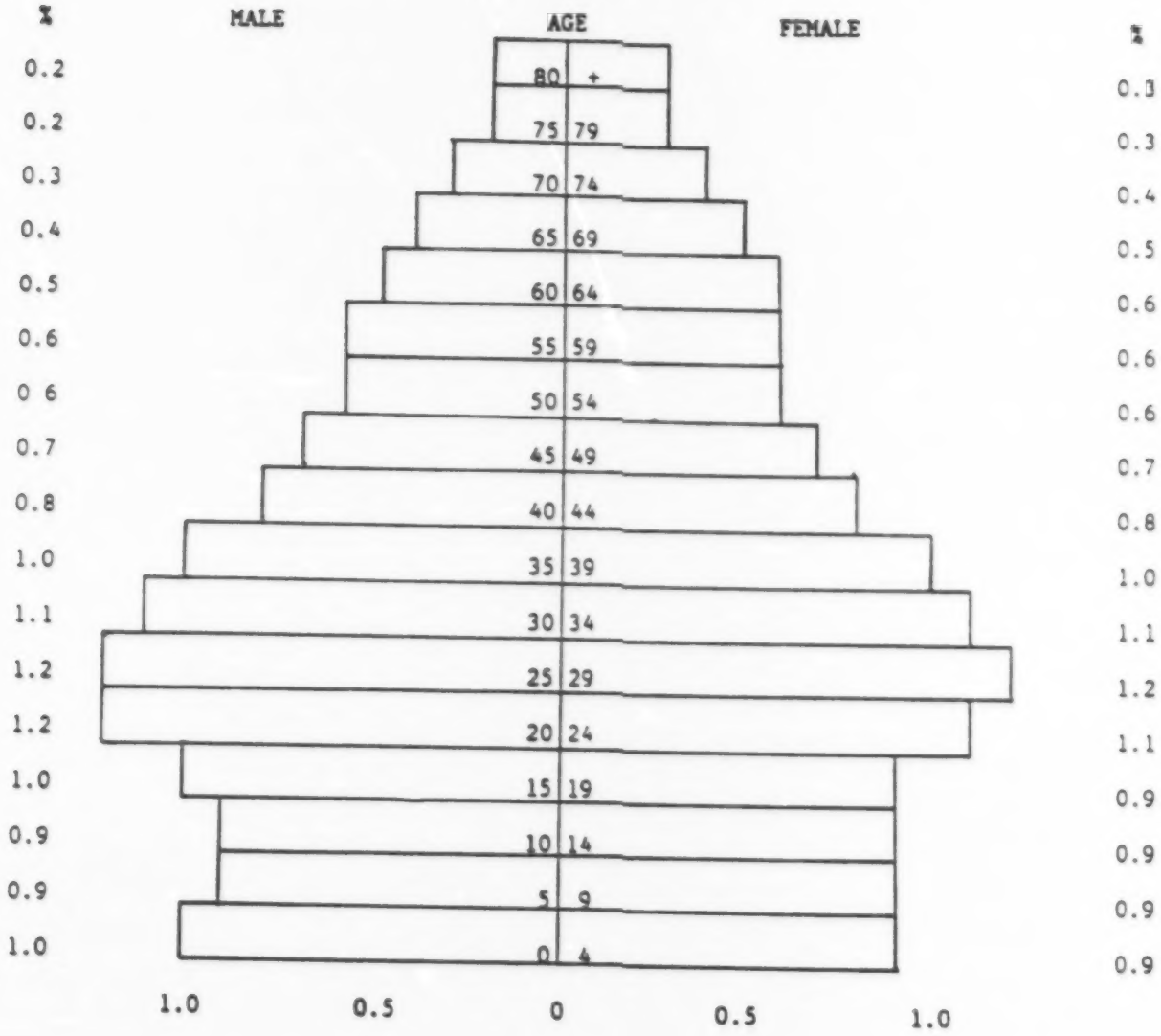
SUMMARY OF THE CONTROLLED RESULTS

	Age	Single Head	Household Size	Birthplace	Spouse Working	Female Head
Food	+	-	+			-
Shelter	+	+			+	+
Household Operations	+				+	+
Furnishings	-	-	-	-	+	+
Clothing	-			-	+	+
Transportation	+		-	+	-	-
Health Care	+	-				+
Personal Care		-			+	+
Recreation	-	+	-	+		-
Reading Materials	+	+	-	-		
Education	-		+			+
Tobacco-Alcohol	-		-	-	-	-

+: Positive Relationship with the Independent Variable;
-: Negative Relationship with the Independent Variable;
A blank space indicates no statistical relationship.

FIGURE 2-1

AGE-SEX COMPOSITION OF THE CANADIAN POPULATION, 1986 (000,000's)



Source: Canada. Statistics Canada. Post-censal Estimates of the Population by Sex and Age, Canada and the Provinces. Ottawa: Supply and Services, Canada, 1986. Table 2.

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